

B-310N / B-510DN

User's Guide

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Safety Instructions

Important Safety Instructions

Read all of the instructions in this section before using the printer. Also, be sure to follow all warnings and instructions marked on the printer.

Setting Up the Printer

Observe the following when setting up the printer:

- ☐ Do not block or cover the vents and openings in the printer.
- ☐ Use only the type of power source indicated on the printer's label.
- ☐ Use only the power cord that comes with the printer. Use of another cord may result in fire or electric shock.
- ☐ The printer's power cord is for use with the printer only. Use with other equipment may result in fire or electric shock.
- ☐ Be sure your AC power cord meets the relevant local safety standard.
- ☐ Avoid using outlets on the same circuit as photocopiers or air control systems that regularly switch on and off.
- ☐ Avoid electrical outlets controlled by wall switches or automatic timers.
- ☐ Keep the entire computer system away from potential sources of electromagnetic interference, such as loudspeakers or the base units of cordless telephones.
- ☐ Do not use a damaged or frayed power cord.
- ☐ If you use an extension cord with the printer, make sure that the total ampere rating of the devices plugged into the extension cord does not exceed the cord's ampere rating. Also, make sure that the total ampere rating of all devices plugged into the wall outlet does not exceed the wall outlet's ampere rating.
- ☐ Do not attempt to service the printer yourself.

- ☐ Unplug the printer and refer servicing to qualified service personnel under the following conditions:
The power cord or plug is damaged; liquid has entered the printer; the printer has been dropped or the casing damaged; the printer does not operate normally or exhibits a distinct change in performance.
- ☐ When connecting the printer to a computer or other device with a cable, ensure the correct orientation of the connectors. Each connector has only one correct orientation. Inserting a connector in the wrong orientation may damage both devices connected by the cable.
- ☐ If damage occurs to the plug, replace the cord set or consult a qualified electrician. If there are fuses in the plug, make sure you replace them with fuses of the correct size and rating.
- ☐ Do not hold the duplex unit when you lift the printer to prevent the duplex unit from becoming detached. Also, make sure that the duplex unit is attached correctly after setting up the printer.




Choosing a Place for the Printer

Observe the following when choosing a place for the printer:

- ☐ Place the printer on a flat, stable surface that extends beyond the base of the printer in all directions. If you place the printer by the wall, leave at least 4 inches (10 cm) between the back of the printer and the wall. The printer will not operate properly if it is tilted at an angle.
- ☐ When storing or transporting the printer, do not tilt it, stand it on its side, or turn it upside down. Otherwise, ink may leak from the ink packs.
- ☐ Leave enough space in front of the printer for the paper to be fully ejected.
- ☐ Avoid places subject to rapid changes in temperature and humidity. Also, keep the printer away from direct sunlight, strong light, or heat sources.
- ☐ Avoid places subject to dust, shocks, or vibrations.
- ☐ Leave enough room around the printer to allow for sufficient ventilation.
- ☐ Place the printer near a wall outlet where the plug can be easily unplugged.

Using the Printer

Observe the following when using the printer:

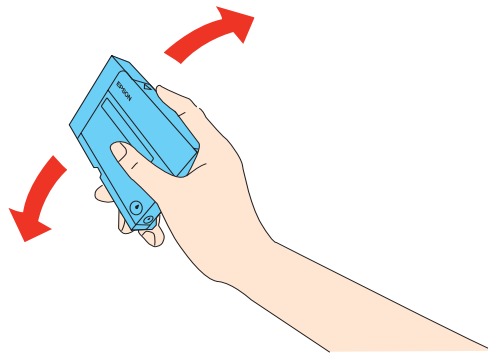
- ☐ Avoid touching the components inside the printer unless instructed to do so in this guide.
- ☐ Do not insert objects through the slots in the printer.
- ☐ Take care not to spill liquid on the printer.
- ☐ Do not touch the white flat cable inside the printer.
- ☐ Do not put your hand inside the printer during printing.
- ☐ Do not use aerosol products that contain flammable gases inside or around this product. Doing so may cause fire.
- ☐ Do not move the print head by hand; otherwise, you may damage the printer.
- ☐ Do not move the cartridge lever during printing.
- ☐ Always turn off the printer using the  **Power** button. When this button is pressed, the  **Power** light flashes. Do not unplug the printer or turn off the power to the outlet until the  **Power** light stops flashing.
- ☐ Before transporting the printer, make sure that the print head is in the home (far right) position.
- ☐ Be careful not to trap your fingers when closing the printer cover.

Handling Ink Cartridges

Observe the following when handling ink cartridges:

- ☐ Keep ink cartridges out of the reach of children and do not drink the ink.
- ☐ If ink gets on your skin, wash it off with soap and water. If it gets in your eyes, flush them immediately with water.

- ❑ Shake the ink cartridge for 5 seconds before installing it for best results.



Caution:

Do not shake cartridges (that have been installed previously) with too much force.

- ❑ Do not use an ink cartridge beyond the date printed on the cartridge carton.
- ❑ Use up the ink cartridge within six months of installation for best results.
- ❑ Do not disassemble or modify the ink cartridge. This may affect normal operation and printing.
- ❑ Store ink cartridges in a cool, dark place.
- ❑ After bringing an ink cartridge inside from a cold storage site, allow it to warm up at room temperature for at least three hours before using it.
- ❑ Do not touch the green IC chip on the side of the cartridge. This may affect normal operation and printing. The IC chip on this ink cartridge retains a variety of cartridge related-information, such as the ink cartridge status, so that the cartridge may be removed and reinserted freely. However, each time the cartridge is inserted, some ink is consumed because the printer automatically performs a reliability check. If you remove an ink cartridge for later use, protect the ink supply area from dirt and dust, and store it in the same environment as this product. Note that there is a valve in the ink supply port, making covers or plugs unnecessary, but care is needed to prevent the ink from staining items that the cartridge touches. Do not touch the ink supply port or surrounding area.

Warnings, Cautions, and Notes

Warnings, Cautions, and Notes in this **User's Guide** are defined as follows:



Warnings

must be followed carefully to avoid bodily injury.

**Cautions**

must be observed to avoid damage to your equipment.

Notes

contain important information and useful tips on the operation of the printer.

Overview of Printer Driver and Status Monitor

The printer driver lets you choose from a wide variety of settings to get the best printing results. Status Monitor and the printer utilities help you check the printer and keep it in top operating condition.

Accessing the Printer Driver for Windows

You can access the printer driver from most Windows® applications, the Windows Start menu, or the taskbar.

To make settings that apply only to the application you are using, access the printer driver from that application.

To make settings that apply to all of your Windows applications, access the printer driver from the Start menu or the taskbar.

Refer to the following sections to access the printer driver.


Note:

Screen shots of the printer driver windows in this User's Guide are from Windows XP.

From Windows Applications

1. Click **Print** or **Print Setup** on the File menu.
2. In the window that appears, click **Printer**, **Setup**, **Options**, **Preferences**, or **Properties**. (Depending on your application, you may need to click one or a combination of these buttons.)

From the Start Menu

1. **Windows 7:**
Click the  Start button, and select **Devices and Printers**.

Windows Vista® and Server 2008:

Click the  Start button, select **Control Panel**, and then select **Printer** from the **Hardware and Sound** category. (If the Control Panel is in Classic View, click **Printers**.)

Windows XP and Server 2003:

Click **Start**, **Control Panel**, then click **Printers and Faxes**. (If the Control Panel is in Category View, click **Printers and Other Hardware**, then click **Printers and Faxes**.)

Windows 2000:

Click **Start**, point to **Settings**, then click **Printers**.

2. Windows 7:

Right-click the icon the printer and select **Printing preferences**.

Windows Vista and Server 2008:

Select the printer and then click **Select printing preferences**.

Windows XP, Server 2003, and 2000:

Select the printer, then click **Printing Preferences** on the File menu.

From the Shortcut Icon on the Taskbar

Right-click the printer icon on the taskbar, then select **Printer Settings**.


To add a shortcut icon to the Windows taskbar, first access the printer driver from the Start menu as described above. Next, click the **Maintenance** tab, the **Speed & Progress** button, and then the **Monitoring Preferences** button. In the Monitoring Preferences window, select the **Select Shortcut Icon** check box.

Getting Information through Online Help

You can access online help for items in the printer driver from your application or the Windows Start menu.


➡ See “Accessing the Printer Driver for Windows” on page 14.

In the printer driver window, try one of the following procedures:

- ☐ Right-click the item, then click **Help**.
- ☐ Click the  button at the top right of the window, then click the item (for Windows XP and 2000 only).

Accessing the Printer Driver for Mac OS X

The table below describes how to access the printer driver dialog.

Dialog	How to Access It
Page Setup	Click Page Setup on the File menu of your application. Note for Mac OS® X 10.5 and 10.6: Depending on your application, the Page Setup menu may not appear in the File menu.
Print	Click Print on the File menu of your application.
EPSON Printer Utility3	You can access this software in the following three ways: <ul style="list-style-type: none"> <input type="checkbox"/> Double-click the EPSON Printer Utility3 icon in the Applications folder in Macintosh HD. Select the printer from the Printer List, then click OK. <input type="checkbox"/> Click Print from your application's File menu, choose Print Settings in the Print window that is displayed, then click the  Utility icon. This Utility icon is not displayed when the printer is shared. <input type="checkbox"/> For Mac OS X 10.4 only Open the Applications folder on your hard drive, then open the Utilities folder and double-click the Print Center or Printer Setup Utility icon. Select the appropriate printer from the list, then click the Configure or Utility button.

Getting information through online help

Click the  **Help** button in the Print dialog.

Uninstalling the Printer Software

Uninstalling the Printer Driver

You may need to uninstall your printer driver if you:

- ☐ Upgrade your computer's operating system.
- ☐ Update your printer driver with a newer version.
- ☐ Have a problem with the printer driver.

If you are upgrading your operating system or updating the printer driver version, be sure to uninstall the current printer driver *before* upgrading or installing the new driver. Otherwise, the driver update will not work.


For Windows

Note:

- ❑ *To uninstall programs in Windows 7 and Windows Vista, you need an administrator account and the password if you log on as a standard user.*
- ❑ *To uninstall programs in Windows XP, you must log on to a Computer Administrator account.*
- ❑ *To uninstall programs in Windows 2000, you must log on as a user with administrative privileges (belonging to the Administrators group).*

1. Turn off the printer and disconnect its interface cable.

2. **Windows 7 and Windows Vista and Server 2008:**

Click the  Start button and select **Control Panel**.

Windows XP and Server 2003:

Click **Start** and select **Control Panel**.

Windows 2000:

Click **Start**, point to **Settings**, and select **Control Panel**.

3. **Windows 7 and Windows Vista and Server 2008:**

Click **Uninstall a program** from the **Programs** category, and then select **EPSON Printer Software** from the list.

Windows XP and 2000:

Select **Add/Remove Programs** and then select **EPSON Printer Software** from the list.

4. **Windows 7 and Windows Vista and Server 2008:**

Click **Uninstall/Change**.

Windows XP, Server 2003, and 2000:

Click **Change/Remove**.

5. Select the icon for your printer and click **OK**.

6. Click **OK** to uninstall the printer driver.

For Mac OS X

Note:

To uninstall the programs, you must log on to a Computer Administrator account. You cannot uninstall programs if you log on as a Limited account user.

1. Quit all running applications.

2. Insert the Epson printer software CD-ROM into your Macintosh.

3. Double-click the **Mac OS X** icon in the Epson folder. The CD Installer screen is displayed. Click **Custom Install**.
4. Select **Printer Driver**.

Note:

*If the Authenticate dialog appears, enter your password or phrase and click **OK**.*

5. Read the software license agreement and click **Accept**.
6. Select **Uninstall** from the menu in the upper left and click **Uninstall**.
7. Follow the on-screen instructions to uninstall the printer driver.

Note for Mac OS X 10.4:


*If the name of your printer remains in the Print Center or Printer Setup Utility, select the name from Printer List and click **Delete**.*

Uninstalling the User's Guide

For Windows

Note:

- ☐ To uninstall programs in Windows 7 and Windows Vista, you need an administrator account and the password if you log on as a standard user.
- ☐ To uninstall programs in Windows XP, you must log on to a Computer Administrator account.
- ☐ To uninstall programs in Windows 2000, you must log on as a user with administrative privileges (belonging to the Administrators group).

1. Turn off the printer and disconnect its interface cable.
2. **Windows 7 and Windows Vista and Server 2008:**
Click the  Start button and select **Control Panel**.

Windows XP and Server 2003:

Click **Start**, then select **Control Panel**.

Windows 2000:

Click **Start**, point to **Settings**, and select **Control Panel**.

3. **Windows 7 and Windows Vista and Server 2008:**
Click **Uninstall a program** from the **Programs** category.

Windows XP, Server 2003, and 2000:

Select **Add or Remove Programs**.

4. Select this printer's **Manual** from the list.
5. **Windows 7 and Windows Vista and Server 2008:**
Click **Uninstall/Change**.

Windows XP, Server 2003, and 2000:
Click **Change/Remove**.

6. Click **OK**.

For Mac OS X

Note:

To uninstall the programs, you must log on to a Computer Administrator account. You cannot uninstall programs if you log on as a Limited account user.

1. Quit all running applications.
2. Insert the Epson printer software CD-ROM into your Macintosh.
3. Double-click the **Mac OS X** icon in the Epson folder. The CD Installer screen is displayed. Click **Custom Install**.
4. Select **User's Guide**.
5. Select **Uninstall** from the menu in the upper left and click **Uninstall**.
6. Follow the on-screen instructions to uninstall the **User's Guide**.

Chapter 2

Paper Handling

Using Special Paper

You can achieve best results with most types of plain bond paper. However, coated papers can also be used.

Epson provides special papers that are formulated for the ink used in Epson ink jet printers, and recommends these papers to ensure high-quality results.

➡ See “Paper, Consumables, and Options” on page 167.

When loading special paper distributed by Epson, read the instruction sheets packed with the paper first and keep the following points in mind.

Note:

- ❑ *Load the paper into the rear sheet feeder printable side up, and in the front paper cassette printable side down. The printable side is usually whiter or glossier. See the instruction sheets packed with the paper for more information.*
- ❑ *If the paper is curled, flatten it or curl it slightly in the opposite direction before loading. Printing on curled paper may cause ink to smear on your printout.*



- ❑ *Avoid using coated color-laser paper, which can lead to unsatisfactory results.*

Paper Loading Capacities

Refer to the table below for the loading capacities of Epson special paper and other paper.

Front paper cassette:


Media Type	Loading Capacity
Epson Bright White Paper	Up to 400 sheets

Plain paper	Up to 510 sheets
-------------	------------------

Rear sheet feeder:

Media Type	Loading Capacity
Plain paper (letter-size)	Up to 150 sheets
Plain paper (legal-size)	1 sheet at a time (up to 60 sheets with the optional legal-size paper support)
Epson Bright White Paper	Up to 100 (70 sheets for manual double-sided printing)
Epson Premium Presentation Paper Matte	Up to 20 sheets
Epson Premium Presentation Paper Matte Double-Sided	1 sheet at a time
Epson Photo Quality Self Adhesive Sheets	1 sheet at a time
Epson Presentation Paper Matte	Up to 100 sheets
Envelopes	Up to 15 envelopes

Note:

- ❑ *If the paper is curled, flatten it or curl it slightly in the opposite direction. Make sure the paper stack fits under the  arrow mark inside the edge guide.*
- ❑ *Maximum capacity for plain paper depends on the weight and thickness of the paper.*
- ❑ *The output tray has a maximum capacity of 170 sheets.*

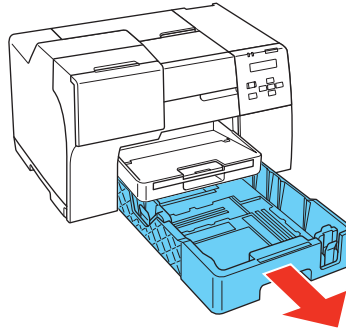
You can purchase genuine Epson ink and paper at Epson Supplies CentralSM at www.epson.com/ink3 (U.S. sales) or www.epson.ca (Canadian sales). You can also purchase supplies from an Epson authorized reseller. To find the nearest one, call 800-GO-EPSON (800-463-7766).

Loading Paper

Follow these steps to load paper:

Front Paper Cassette

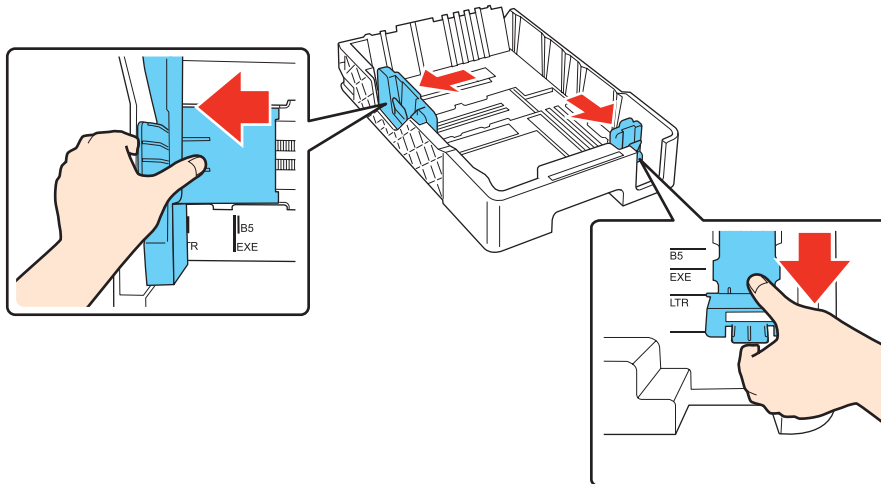
1. Pull out the front paper cassette.



Note:

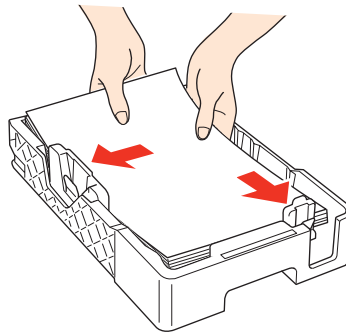
- ❑ The B-310N and the standard-sized front paper cassette are shown throughout.
- ❑ If the legal-size paper cassette (optional for the B-310N) is attached instead of the front paper cassette, raise its cover and flip it open.

2. Squeeze the edge guides and slide them out until they click into place.



3. Fan a stack of paper, then tap it on a flat surface to even the edges.

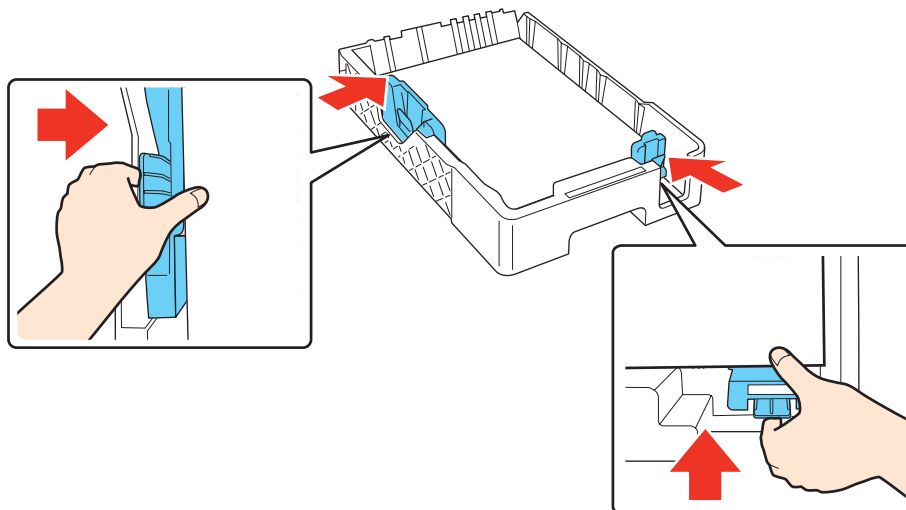
4. Load the paper with the printable side down.



Note:

Avoid adding paper in the middle of print jobs. Doing so may prevent the paper from feeding smoothly.

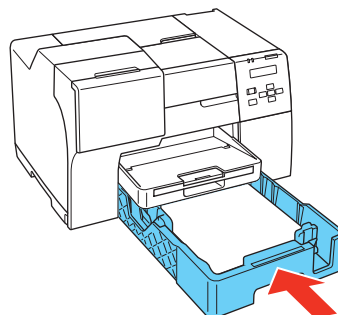
5. Squeeze the edge guides and slide them against the paper until they click.



Note:

If the legal-size paper cassette is attached instead of the front paper cassette, close its cover.

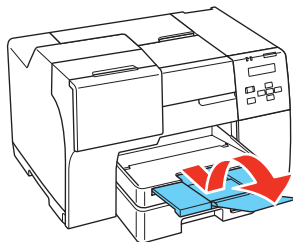
6. Gently reinsert the cassette into the printer.



**Caution:**

To avoid paper jams, do not force the front paper cassette or legal size paper cassette into the printer and check the edge guides after inserting the cassette.

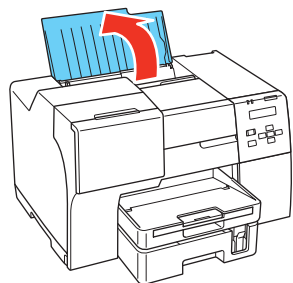
7. Slide out and extend the extension tray.

**Note:**

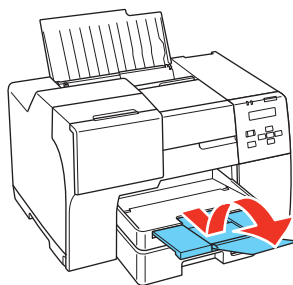
- ❑ Leave enough space in front of the printer for the paper to be fully ejected.
- ❑ Make sure the paper stack fits under the \equiv arrow mark inside the left edge guide.
- ❑ The legal size paper cassette does not align flush with the output tray.

Rear Sheet Feeder

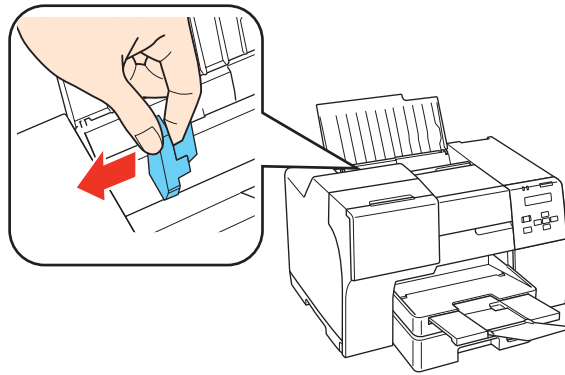
1. Open the paper support.



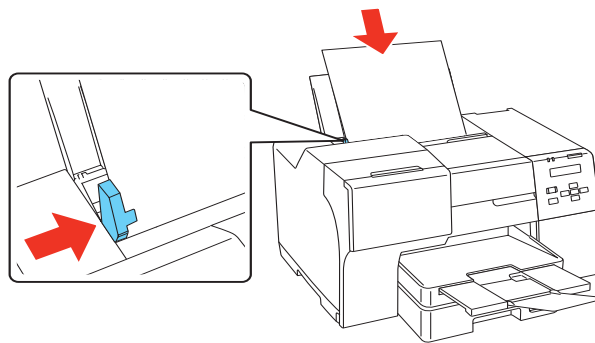
2. Slide out and extend the extension tray.




3. Slide the edge guide to the left.



4. Fan a stack of paper, then tap it on a flat surface to even the edges.
5. Load the paper with the printable side up, against the right side of the rear sheet feeder. Then slide the edge guide against the left edge of the paper.

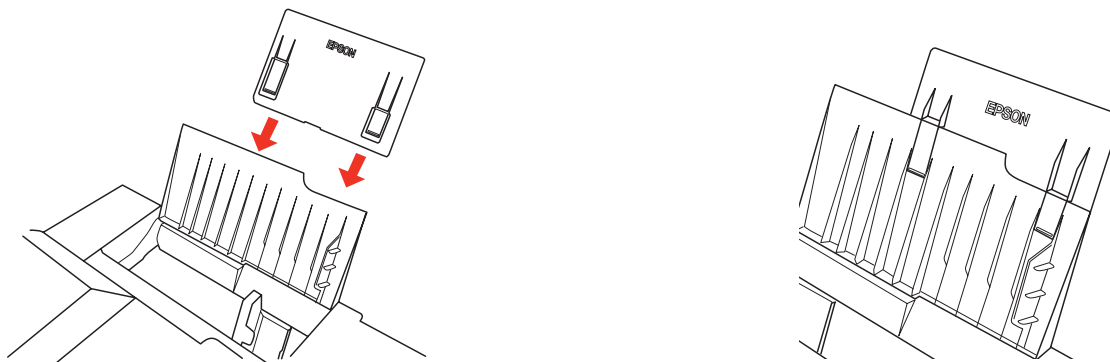


Note:

- ☐ Leave enough space in front of the printer for the paper to be fully ejected.
- ☐ Always load paper into the rear sheet feeder short edge first, even when you are printing landscape-oriented pictures.
- ☐ Avoid adding paper in the middle of print jobs. Doing so may prevent the paper from feeding smoothly.
- ☐ Make sure the paper stack fits under the  arrow mark inside the left edge guide.

Using the Optional Legal-Size Paper Support

Align the legal-size paper support with the right side of the paper support and attach it as shown. You can load up to 60 sheets of plain legal-size paper (up to 20 lb or 75 g/m²).

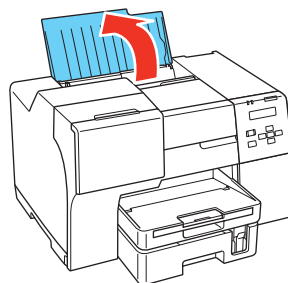


Do not leave legal-size paper in the rear sheet feeder when you are not printing, or the sheets may curl.

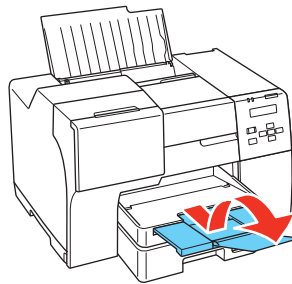
Loading Envelopes

Follow these steps to load envelopes:

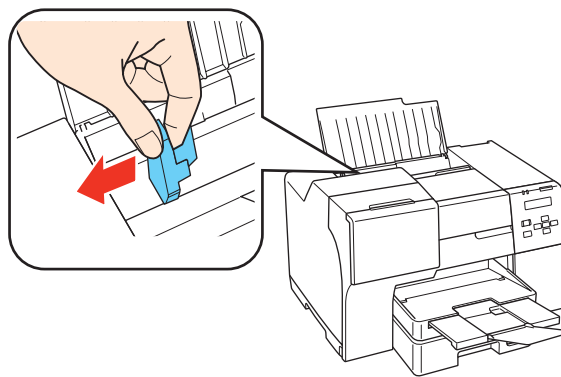
1. Open the paper support.



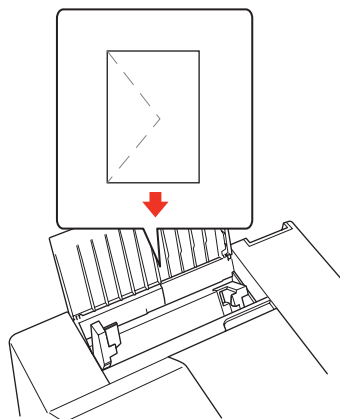
2. Slide out and extend the extension tray.



3. Slide the left edge guide to the left.



4. Load envelopes short edge first with the flap facing down and to the left. Then slide the left edge guide against the left edge of the envelopes.



Note:

- ❑ The thickness of envelopes and their ability to fold vary widely. If the total thickness of the stack of envelopes exceeds 0.6 inch (15 mm), press down on the envelopes to flatten them before loading. If print quality declines when a stack of envelopes is loaded, load one envelope at a time.
- ❑ You can load up to 15 envelopes at a time in the rear sheet feeder.

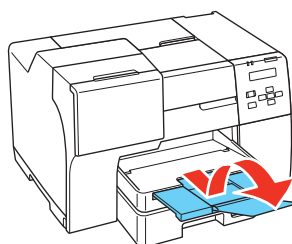
- ❑ *Do not use envelopes that are curled or folded.*
- ❑ *Flatten the envelope flaps before loading.*
- ❑ *Flatten the leading edge of the envelope before loading.*
- ❑ *Avoid using envelopes that are too thin, as they may curl during printing.*

For printing instructions, see the following instructions.

➡ See “Printing on Envelopes” on page 42.

Setting Up the Output Tray

The output tray is located on the front paper cassette. Slide out the extension tray and then open the flap on the extension tray to prevent your prints from slipping off the printer. The maximum capacity of the output tray is 170 sheets.



Selecting the Correct Paper Type or Media Type

The printer automatically adjusts itself for the type of paper you select in your print settings. That is why the paper type or media type setting is so important. It tells your printer what kind of paper you are using and adjusts the ink coverage accordingly. The table below lists the settings you should choose for your paper.

For this paper	Select this paper type (media type) setting
Plain paper	Plain Paper/Bright White Paper
Epson Bright White Paper	
Epson Premium Presentation Paper Matte	Premium Presentation Paper Matte
Epson Premium Presentation Paper Matte Double-Sided	
Epson Presentation Paper Matte	Presentation Paper Matte
Envelopes	Envelope

Chapter 3

Basic Printing

Introduction

This section guides you through the procedures for different kinds of printing.

Printing Documents

Explains how to print documents on various types of paper.

➡ See “Printing Documents” on page 30.



Printing Photos

Explains how to print photos on various types of paper.

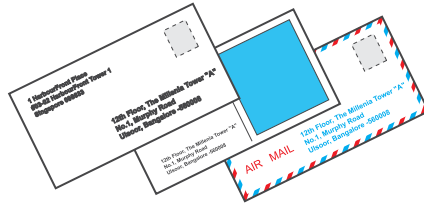
➡ See “Printing Photos” on page 36.



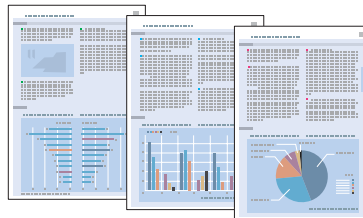
Printing on Envelopes

Explains how to print on envelopes.

➡ See “Printing on Envelopes” on page 42.



Printing Documents



Loading Paper

Refer to the section below for details on loading paper.

➡ See “Loading Paper” on page 21.

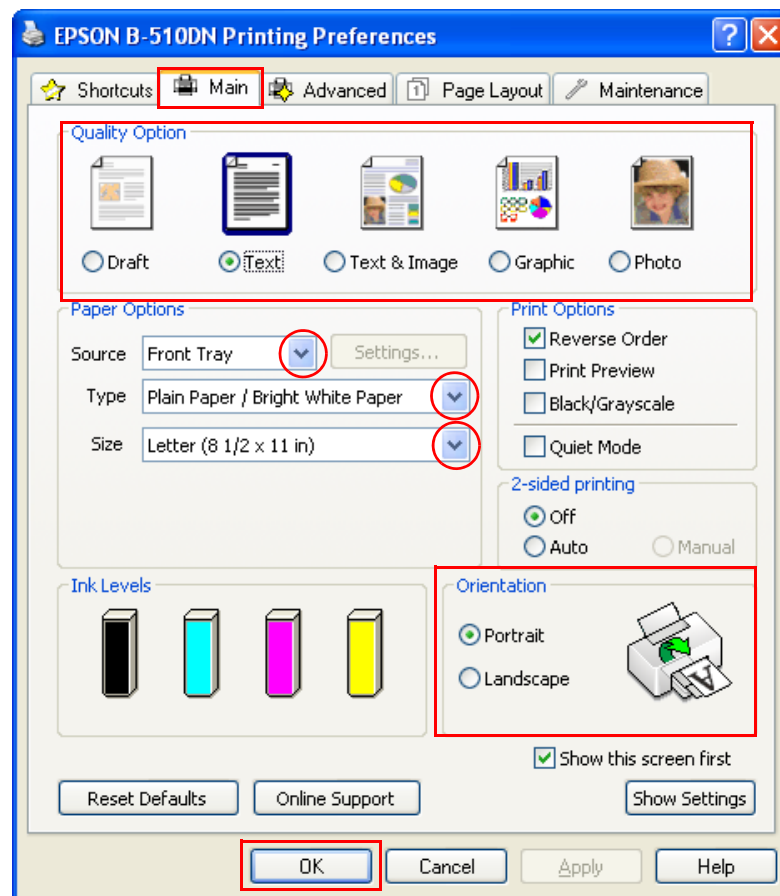
When using special Epson paper, refer to the section below.

➡ See “Using Special Paper” on page 20.

Printer Settings for Windows

1. Open the file you want to print.
2. Access the printer settings.

➡ See “Accessing the Printer Driver for Windows” on page 14.



3. Click the **Main** tab, then select one of the following Quality Option settings:

- ☐ **Draft** for rough drafts with reduced print quality
- ☐ **Text** for text-only documents with higher text quality
- ☐ **Text & Image** for higher quality documents with text and images

4. Select the paper source as the Source setting.

5. Select the appropriate Type setting.

➡ See “Selecting the Correct Paper Type or Media Type” on page 28.

6. Select the appropriate Size setting. You can also define a custom paper size. For details, see the online help.

7. Select **Portrait** (tall) or **Landscape** (wide) to change the orientation of your printout.

8. Click **OK** to close the printer settings window.

9. Print your file.

Note:

You can also print on both sides of the paper.

➡ See “Double-Sided (Duplex) Printing” on page 51.

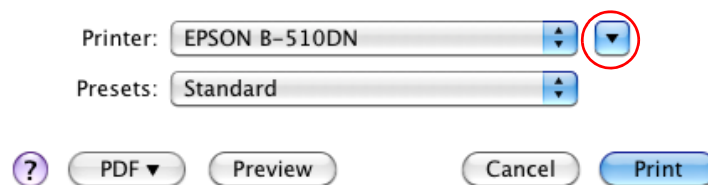
Printer Settings for Mac OS X 10.5 and 10.6

Follow these steps to adjust your printer settings.

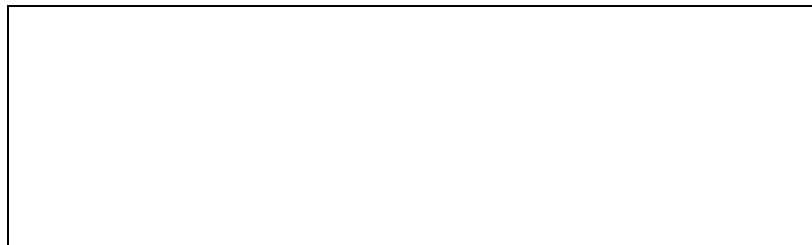
1. Open the file you want to print.

2. Access the Print dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



3. Click the ▼ button to extend this dialog.



4. Select the printer you are using as the Printer setting, and then make suitable settings.

Printer: EPSON B-510DN

Presets: Standard

Copies: 1 ☒ Collated

Pages: ☒ All
☐ From: 1 to: 1

Paper Size: US Letter 8.50 by 11.00 inches

Orientation:

Preview

☒ Auto Rotate

☐ Scale: 296 %

☒ Scale to Fit: ☐ Print Entire Image
☒ Fill Entire Paper

Images per page: 1

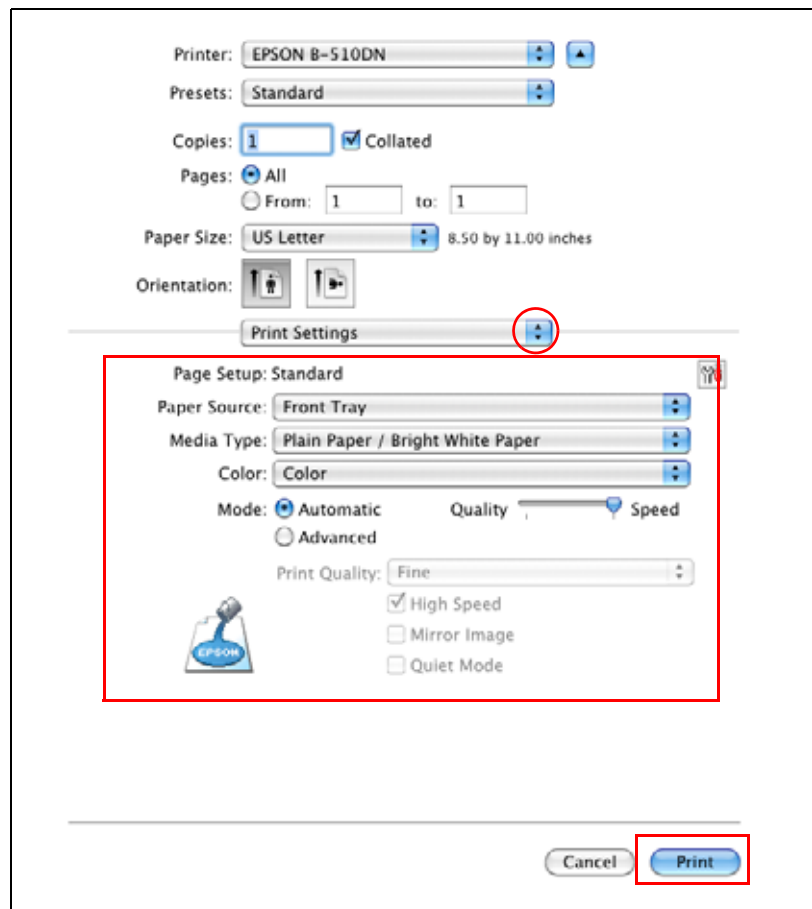
☐ Print 1 copies per page

Cancel Print

Note:

Depending on your application, you may not be able to select some of the items in this dialog. If so, click **Page Setup** on the File menu of your application, and then make suitable settings.

5. Select **Print Settings** from the pop-up menu.

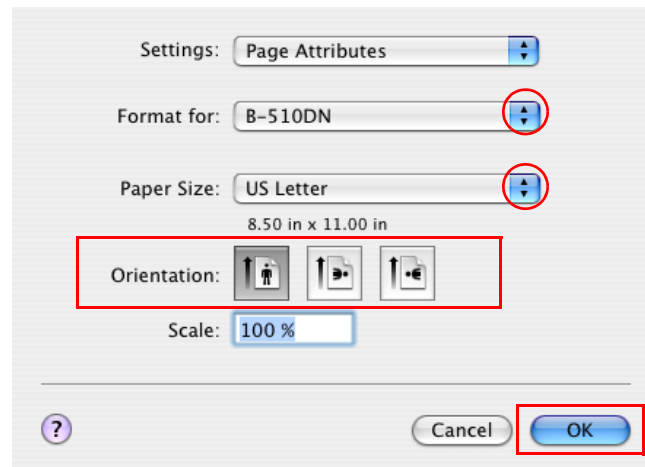


6. Make the settings that you want to use to print. See online help for details of Print Settings.
 - ➡ See “Selecting the Correct Paper Type or Media Type” on page 28.
7. Click **Print** to start printing.

Printer Settings for Mac OS X 10.4

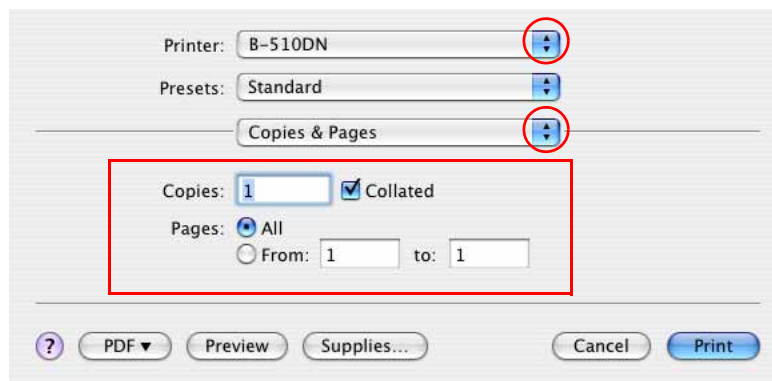
1. Open the file you want to print.
2. Access the Page Setup dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



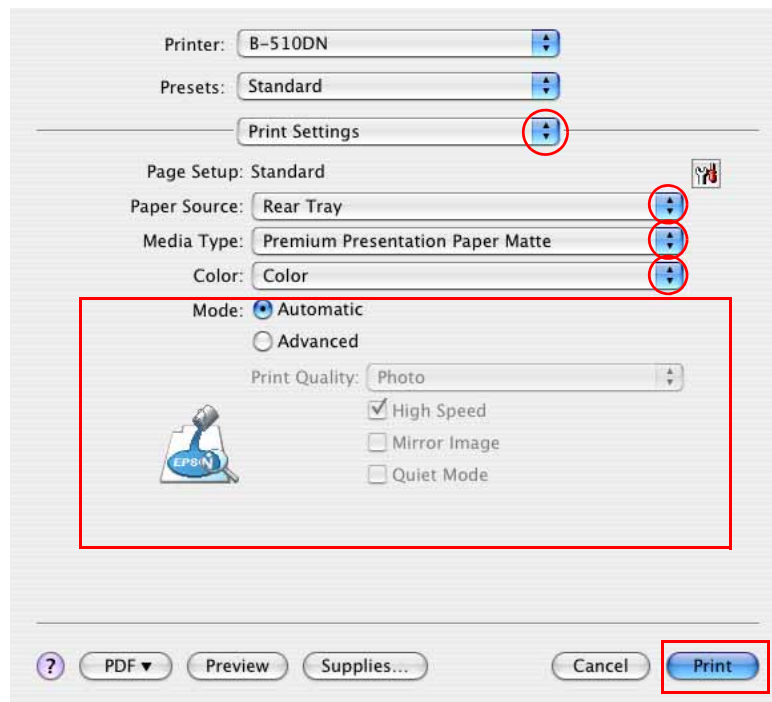
3. Select the printer you are using as the Format for setting, and then make suitable settings.
4. Click **OK** to close the Page Setup dialog.
5. Access the Print dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



6. Select the printer you are using as the Printer setting. Then make the Copies & Pages settings.

7. Select **Print Settings** from the pop-up menu.



8. Make the settings that you want to use to print. See online help for details of Print Settings.
 - ➡ See “Selecting the Correct Paper Type or Media Type” on page 28.
9. Click **Print** to start printing.

Printing Photos



Preparing the Print File

- You need to adjust the image file to the size of the paper. If your application has margin settings, make sure that the margins are within the printable area of the page.
- ➡ See “Printable Area” on page 171.

Loading Paper

Refer to the section below for details on loading paper.

➡ See “Loading Paper” on page 21.

When using special Epson paper, refer to the section below.

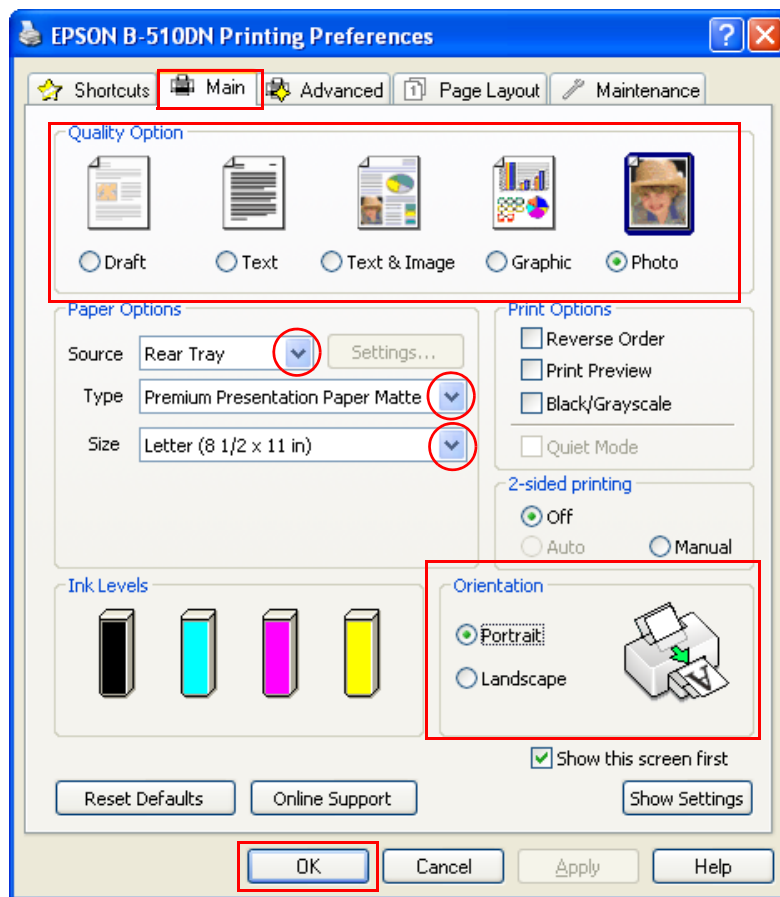
➡ See “Using Special Paper” on page 20.

Printer Settings for Windows

Follow these steps to adjust your printer settings.

1. Access the printer settings.

➡ See “Accessing the Printer Driver for Windows” on page 14.



2. Click the **Main** tab, then select **Photo** in the Quality Option settings.

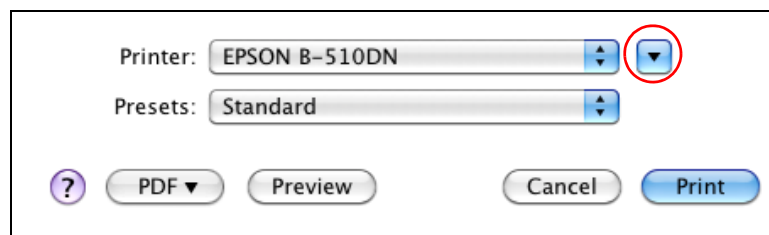
3. Select the paper source as the Source setting.
4. Select the appropriate Type setting.
 - ➡ See “Selecting the Correct Paper Type or Media Type” on page 28.
5. Select the appropriate Size setting. You can also define a custom paper size. For details, see the online help.
6. Select **Portrait** (tall) or **Landscape** (wide) to change the orientation of your printout.
7. Click **OK** to close the printer settings window.

After completing the steps above, print one test copy and examine the results before printing an entire job.

Printer Settings for Mac OS X 10.5 and 10.6

Follow these steps to adjust your printer settings.

1. Access the Print dialog.
 - ➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



2. Click the ▼ button to extend this dialog.

3. Select the printer you are using as the Printer setting, and then make suitable settings.

Printer: EPSON B-510DN

Presets: Standard

Copies: 1 ☒ Collated

Pages: ☒ All
☐ From: 1 to: 1

Paper Size: US Letter 8.50 by 11.00 inches

Orientation:

Preview

☒ Auto Rotate

☒ Scale: 100 %

☐ Scale to Fit: ☒ Print Entire Image
☐ Fill Entire Paper

Images per page: 1

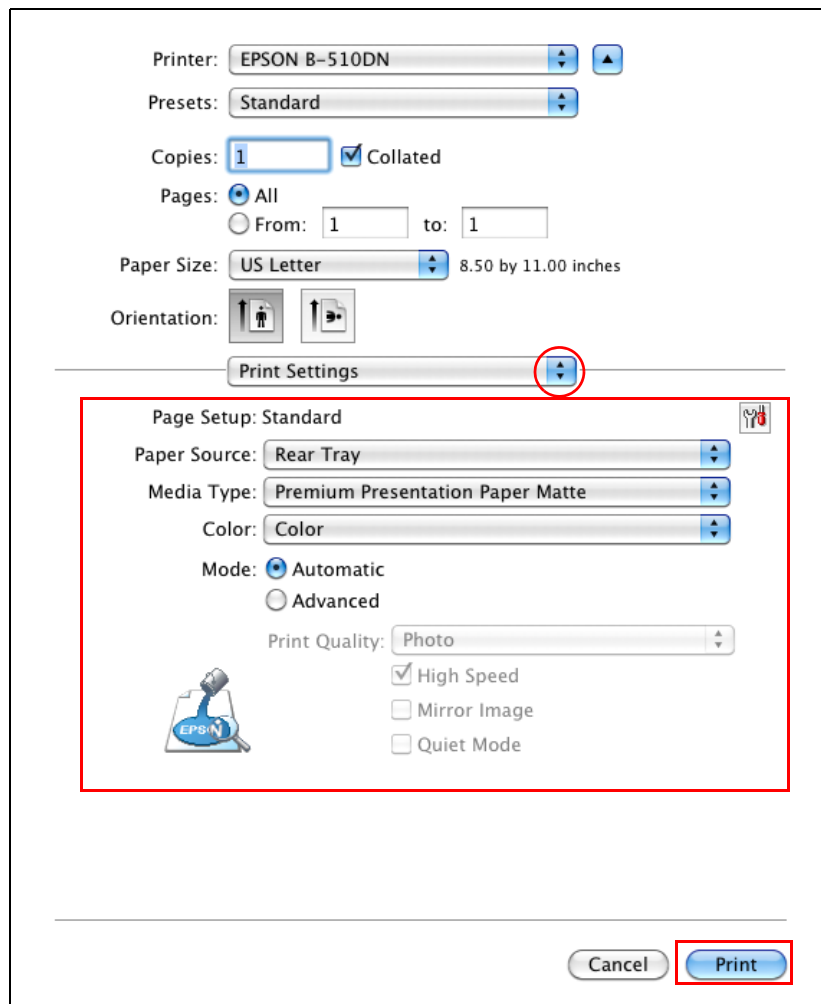
☐ Print 1 copies per page

Cancel Print

Note:

Depending on your application, you may not be able to select some of the items in this dialog. If so, click **Page Setup** on the File menu of your application, and then make suitable settings.

4. Select **Print Settings** from the pop-up menu.



5. Make the settings that you want to use to print. See online help for details of Print Settings.

➡ See “Selecting the Correct Paper Type or Media Type” on page 28.

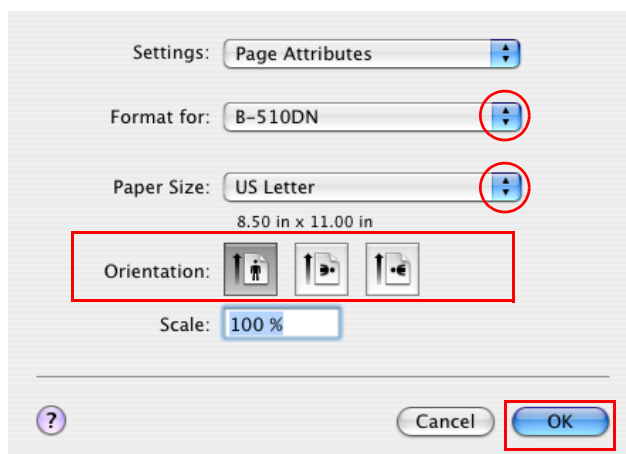
After completing the steps above, print one test copy and examine the results before printing an entire job.

Printer Settings for Mac OS X 10.4

Follow these steps to adjust your printer settings.

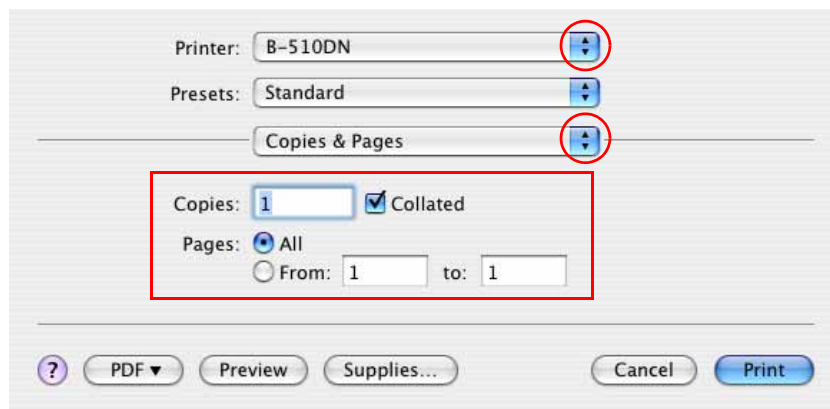
1. Access the Page Setup dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



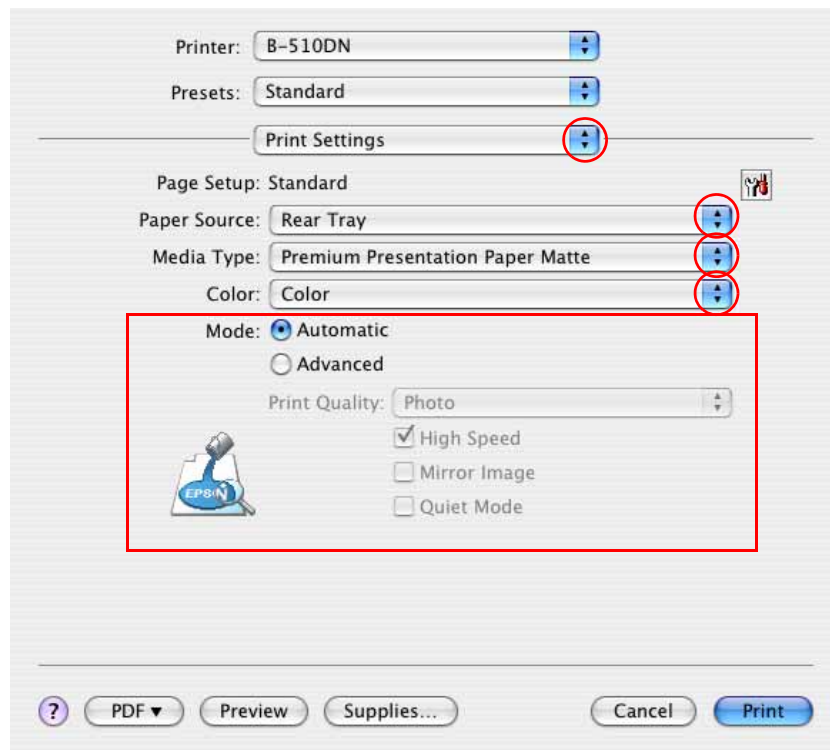
2. Select the printer you are using as the Format for setting, and then make suitable settings.
3. Click **OK** to close the Page Setup dialog.
4. Access the Print dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



5. Select the printer you are using as the Printer setting. Then make the Copies & Pages settings.

6. Select **Print Settings** from the pop-up menu.

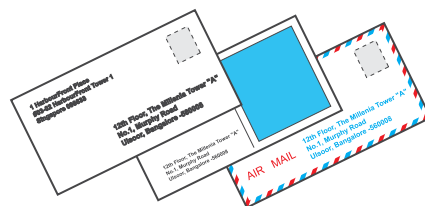


7. Make the settings that you want to use to print. See online help for details of Print Settings.

➔ See “Selecting the Correct Paper Type or Media Type” on page 28.

After completing the steps above, print one test copy and examine the results before printing an entire job.

Printing on Envelopes



Loading Envelopes

Refer to the section below for loading envelopes.

➔ See “Loading Envelopes” on page 26.

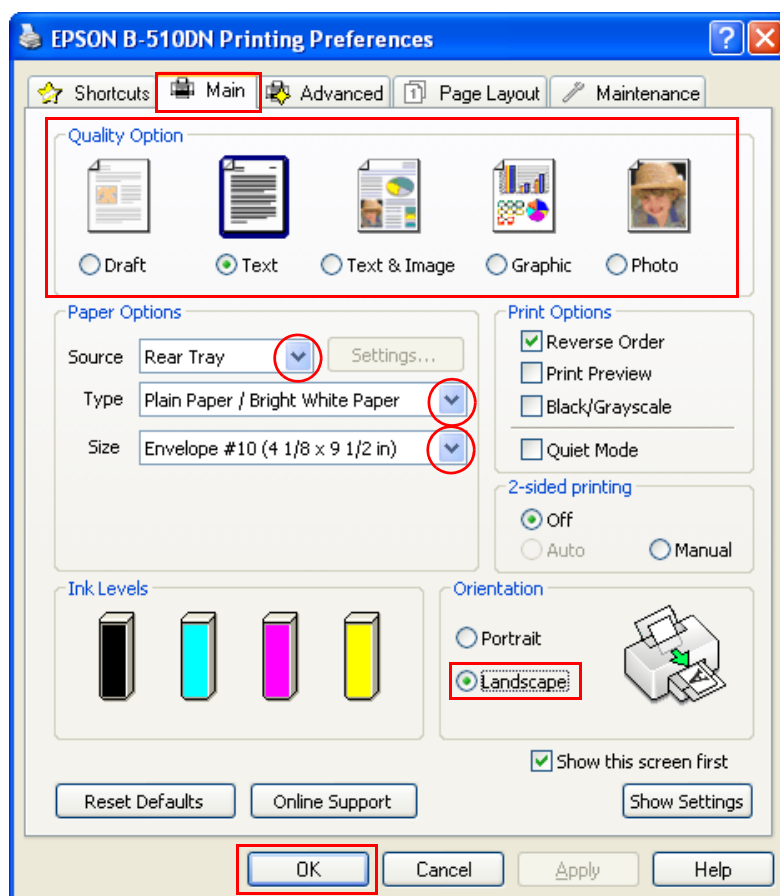
Refer to the section below for the printable area.

➔ See “Printable Area” on page 171.

Printer Settings for Windows

1. Access the printer settings.

➔ See “Accessing the Printer Driver for Windows” on page 14.



2. Click the **Main** tab, then select one of the following Quality Option settings:

- ☐ **Text** for most envelopes
- ☐ **Text & Image** to print images on the envelope

3. Select **Rear Tray** as the Source setting.

4. Select **Envelope** as the Type setting.

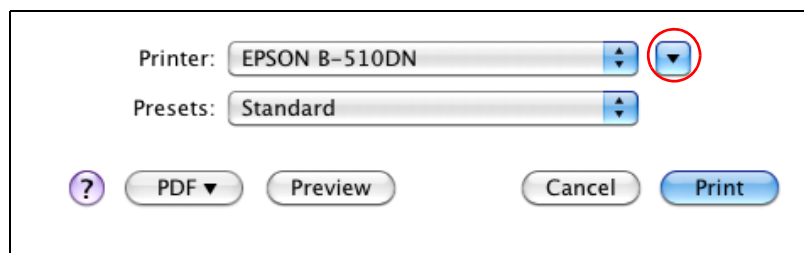
5. Select the appropriate envelope size from the available Size settings. You can also define a custom size. For details, see the online help.
6. Select **Landscape** as the Orientation setting.
7. Click **OK** to close the printer settings window.
8. Print your envelope.

Printer Settings for Mac OS X 10.5 and 10.6

Follow these steps to adjust your printer settings.

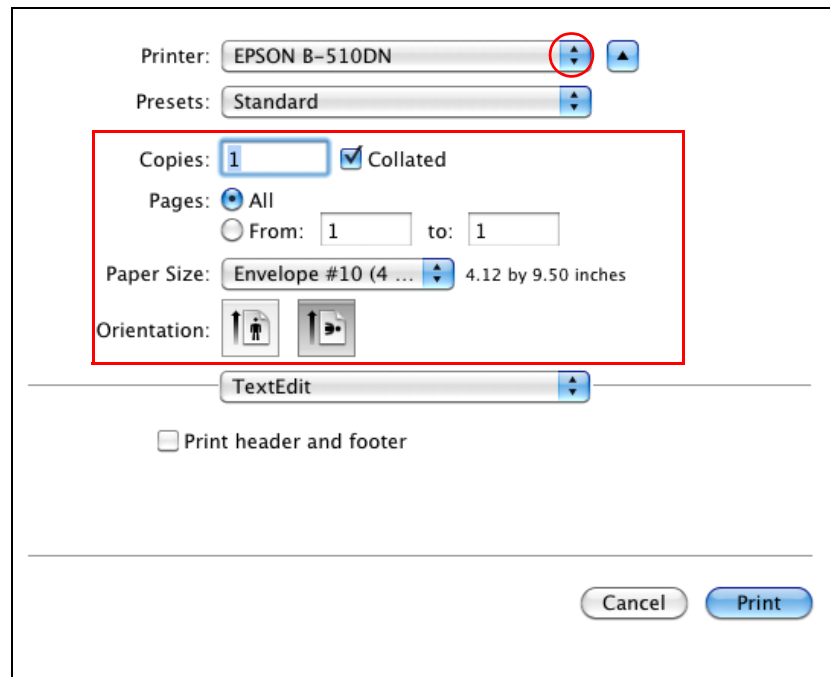
1. Access the Print dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



2. Click the ▼ button to extend this dialog.
3. Select the printer you are using as the Printer setting, and then select a suitable envelope size as the Paper Size setting. You can also define a custom envelope size. For details, see the online help.

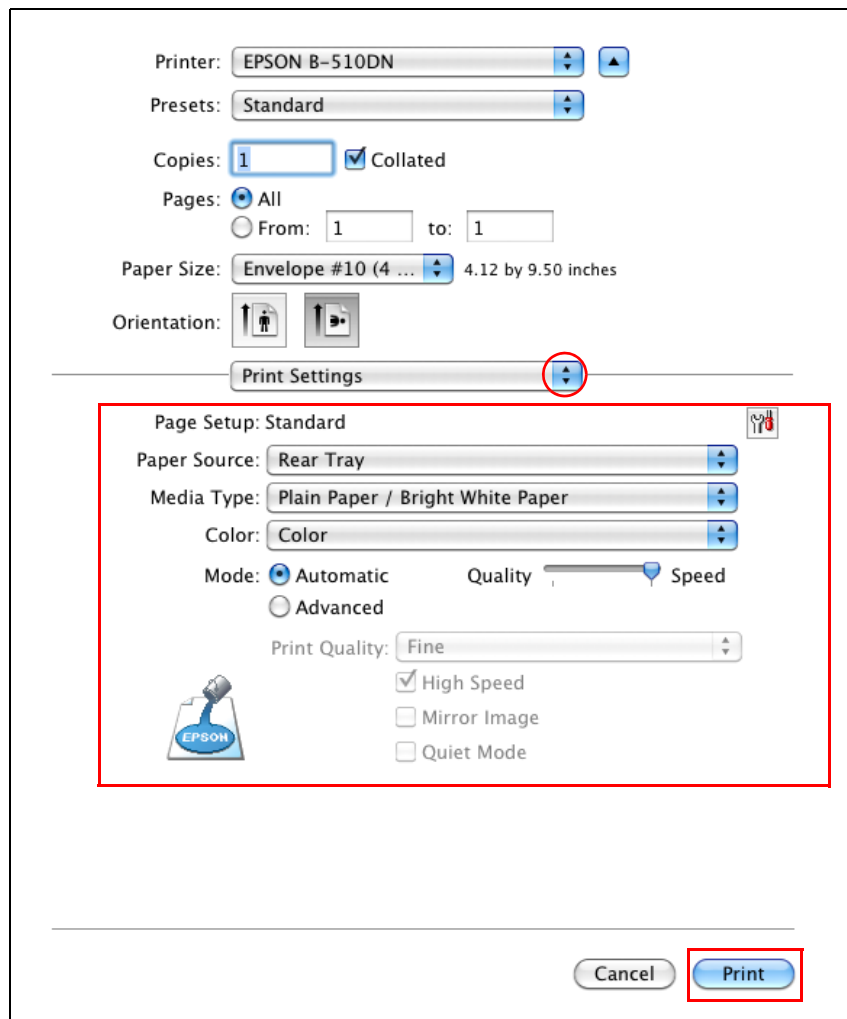
4. Select **Landscape** as the Orientation setting.



Note:

Depending on your application, you may not be able to select some of the items in this dialog. If so, click **Page Setup** on the File menu of your application, and then make suitable settings.

5. Select Print Settings from the pop-up menu.

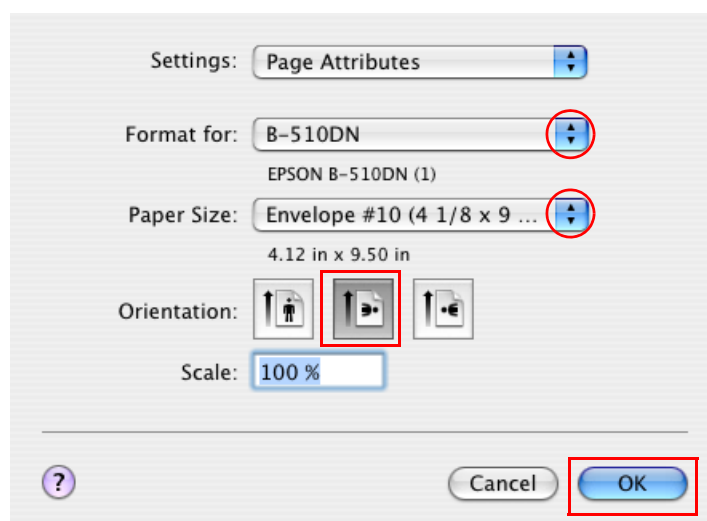


6. Select **Envelope** as the Media Type setting.
7. Make other settings that you want to use to print. See online help for details of Print Settings.
8. Click **Print** to start printing.

Printer Settings for Mac OS X 10.4

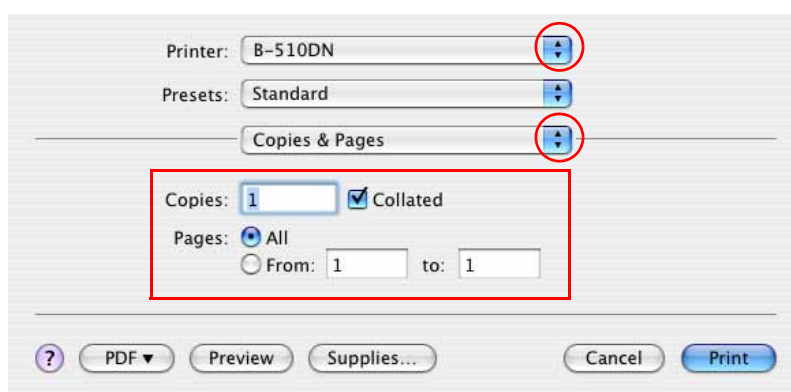
1. Access the Page Setup dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



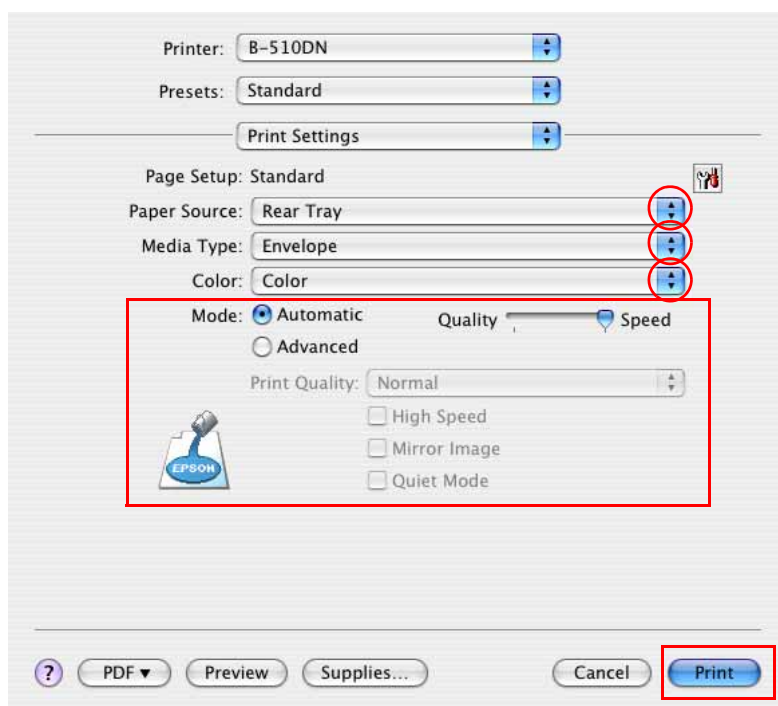
2. Select the printer you are using as the Format for setting.
3. Select the appropriate envelope size as the Paper Size setting. You can also define a custom envelope size. For details, see the online help.
4. Select **Landscape** as the Orientation setting.
5. Click **OK** to close the Page Setup dialog.
6. Access the Print dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



7. Select the printer you are using as the Printer setting, then make the Copies & Pages settings.

8. Select **Print Settings** from the pop-up menu.



9. Select **Envelope** as the Media Type setting.


10. Make other settings that you want to use to print. See online help for details of Print Settings.

11. Click **Print** to start printing.

Canceling Printing

If you need to cancel printing, follow the instructions in the appropriate section below.

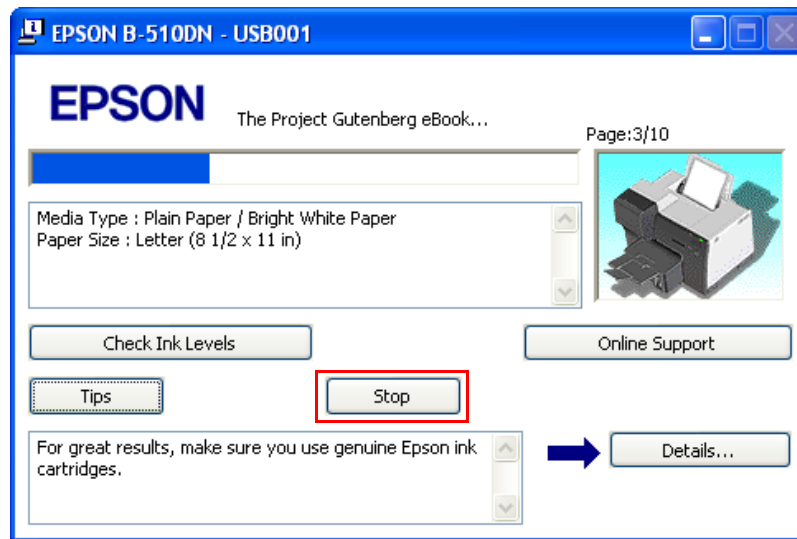
Using the Cancel Button on the Printer

Press the  **Cancel** button to cancel a print job in progress.

Canceling from Windows

When you start printing, the progress meter appears on your computer screen.

Click the **Stop** button to cancel printing.



Canceling from Mac OS X

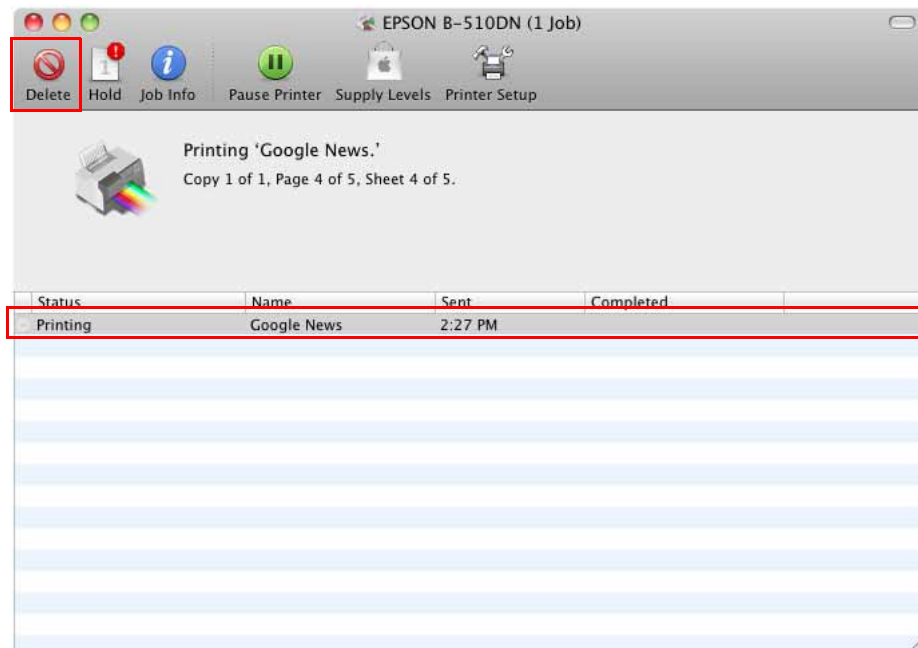
Follow the steps below to cancel a print job.

1. Click your printer icon in the Dock.



2. In the Document Name list, select the document that is printing.

3. Click the **Delete** button to cancel the print job.



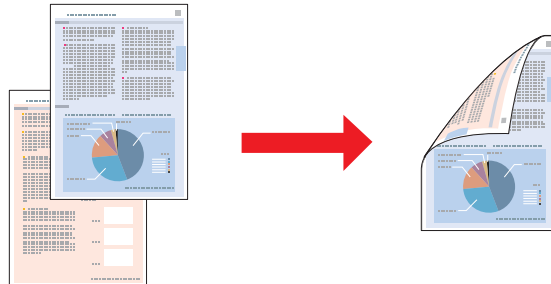
Introduction

You can print with a variety of layouts for special projects, such as booklets and posters.

Double-Sided (Duplex) Printing

Lets you print on both sides of the paper.

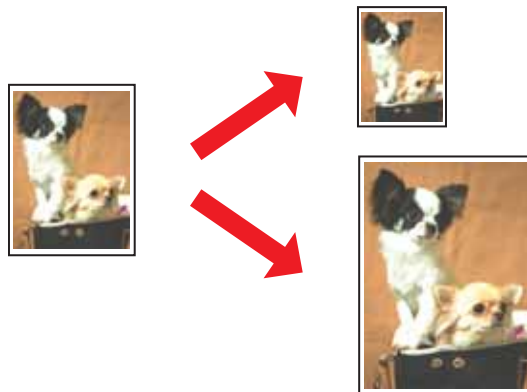
➡ See “Double-sided (Duplex) Printing” on page 53.



Fit to Page Printing

Lets you automatically enlarge or reduce the size of your document to fit the paper size selected in the printer driver.

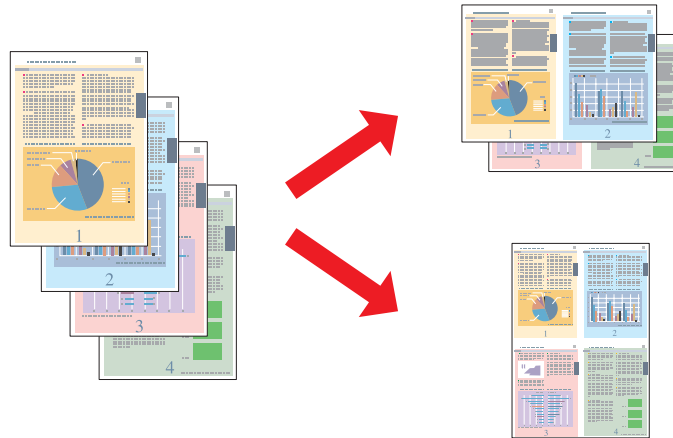
➡ See “Fit to Page Printing” on page 73.



Pages Per Sheet Printing

Lets you print two or four pages on a single sheet of paper.

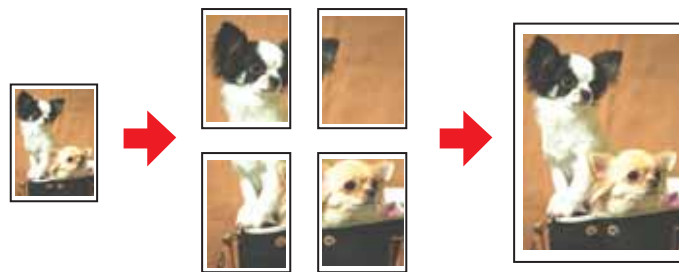
➡ See “Pages Per Sheet Printing” on page 81.



Poster Printing (for Windows only)

Lets you enlarge material on a single document page to cover 4, 9, or 16 printed sheets of paper, and then make a poster.

➡ See “Poster Printing (for Windows only)” on page 89.



Watermark Printing (for Windows only)

Lets you print text or an image as a watermark on each page of your printout.

➡ See “Watermark Printing (for Windows only)” on page 94.

For example, you can put “Confidential” on an important document.

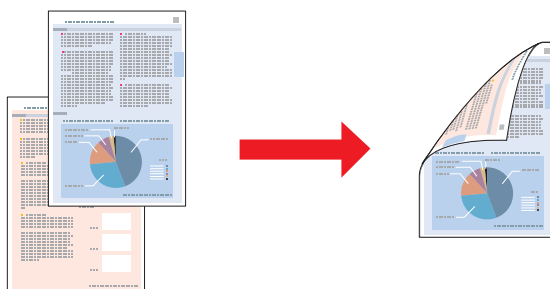


Double-sided (Duplex) Printing

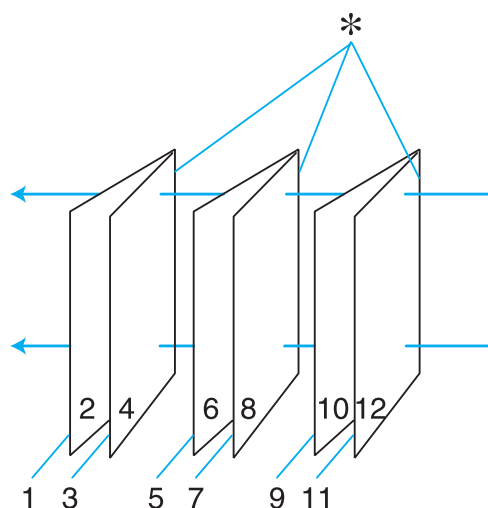
Two types of double-sided printing are available: standard and folded booklet.

Standard double-sided printing lets you automatically print on both sides of the page (on plain paper only), using the duplex unit.

Without the duplex unit, you can print the odd-numbered pages first. Once these pages are printed, you can reload them to print the even-numbered pages onto the opposite side of the paper.



Folded booklet double-sided printing allows you to make single-fold booklets. The pages that will appear on the outside (after the page is folded) are printed first. The pages that will appear inside the booklet can then be printed after you reload the paper into the printer.



*: Binding edge

You can create a booklet by printing pages 1 and 4 on the first sheet of paper, pages 5 and 8 on the second sheet, and pages 9 and 12 on the third sheet.

After you reload these sheets into the rear sheet feeder, you can then print pages 2 and 3 on the back of the first sheet of paper, pages 6 and 7 on the back of the second sheet, and pages 10 and 11 on the back of the third sheet.

The resulting pages can then be folded and bound together into a booklet.

Note:

- ☐ Depending on the paper, stacks of up to 30 sheets can be loaded into the rear sheet feeder during double-sided printing.
- ☐ Only use papers that are suitable for double-sided printing. Otherwise, the printout quality may deteriorate.
- ☐ Depending on the paper and the amount of ink used to print text and images, ink may bleed through to the other side of the paper.
- ☐ The surface of the paper may be smeared during double-sided printing.

Standard Double-sided Printing for Windows

Automatic Double-sided Printing (Using the Duplex Unit)

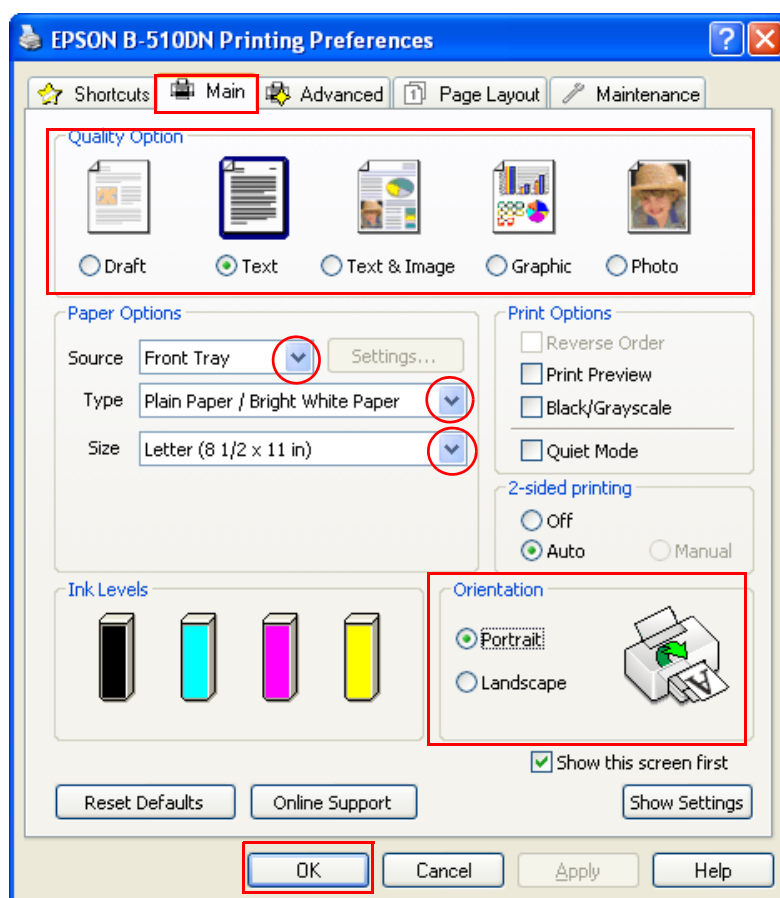
Follow the steps below to print odd- and even-numbered pages onto opposite sides of the sheet using the duplex unit.

Note:

The duplex unit is standard on the B-510DN and available as an option for the B-310N. Automatic double-sided printing supports plain paper and Epson Bright White Paper only. Thick plain paper is not supported for automatic double-sided printing.

1. Access the printer settings.

➡ See “Accessing the Printer Driver for Windows” on page 14.



2. Click the **Main** tab, then select one of the following Quality Option settings:

- ☐ **Draft** for rough drafts with reduced print quality
- ☐ **Text** for text-only pages

- ☐ **Text & Image** for higher quality pages with text and images
 - ☐ **Graphic** for higher quality graphics
 - ☐ **Photo** for good quality and speed
3. Select the paper source as the Source setting.
 4. Select **Plain Paper/Bright White Paper** as the Type setting.
 - ➡ See “Selecting the Correct Paper Type or Media Type” on page 28.
 5. Select the appropriate Size setting.
 6. Select **Portrait** (tall) or **Landscape** (wide) to change the orientation of your printout.
 7. Select **2-sided printing, Auto**.
 8. Click **OK** to save your settings.
 9. Click **OK** or **Print** to start printing.

Note:

Do not try to pull out your prints before both sides of the page are printed.

Special Settings for Automatic Double-sided Printing (Using the Duplex Unit)

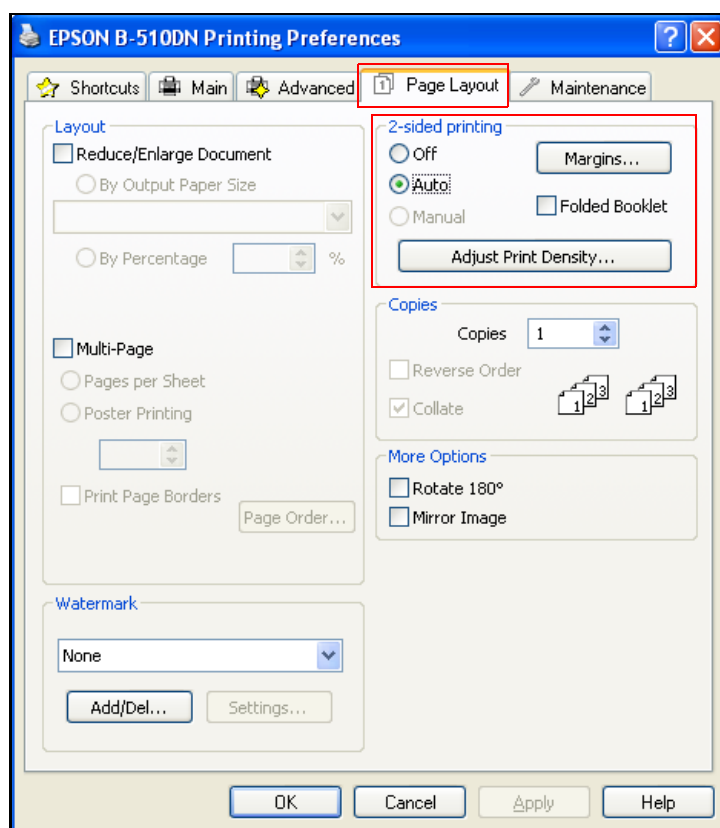
When you print photos or heavy text on both sides of the page, you can adjust the print density and drying time to prevent ink from bleeding through to the other side. You can also adjust the margins to allow for binding your pages.

Note:

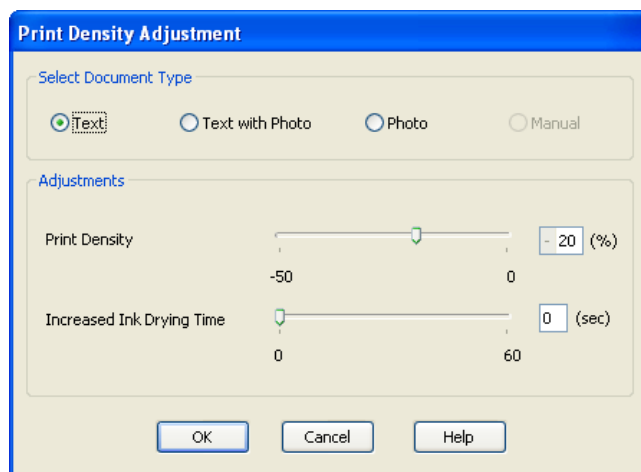
Automatic double-sided printing supports plain paper and Epson Bright White Paper only.

1. Access the printer settings.
 - ➡ See “Accessing the Printer Driver for Windows” on page 14.
2. Select the appropriate Quality Option, Paper Options, and Orientation.
 - ➡ See “Automatic Double-sided Printing (Using the Duplex Unit)” on page 55.

3. Click the **Page Layout** tab.



4. Select **Auto** under **2-sided printing** to use the automatic double-sided printing function.
5. Click **Adjust Print Density** to open the Print Density Adjustment window.



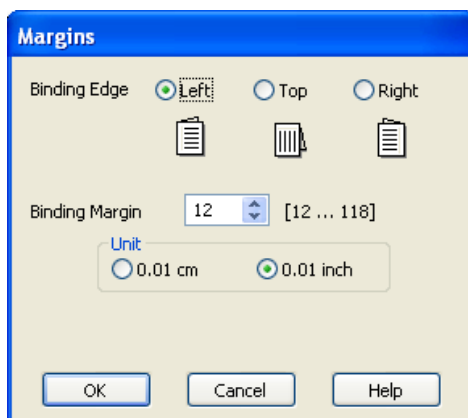
6. Select the appropriate document type as the Select Document Type setting.

- Specify the Print Density and Increased Ink Drying Time as the Adjustments setting.

Note:

When you print dense photos on both sides of the paper, reduce the print density and increase the drying time to improve quality.

- Click **OK** to return to the Page Layout window.
- Click **Margins** to open the Margins window.



- Specify the edge of the paper where the binding will be placed. You can choose **Left**, **Top**, or **Right**.
- Choose **cm** or **inch** as the Unit setting. Then specify the width of the binding margin. You can enter any width from 0.12 to 1.18 inches or 0.3 to 3.0 cm.

Note:

The actual binding margin may be different from the specified settings depending on your application. Experiment with a few sheets to examine actual results before printing the entire job.

- Click **OK** to return to the Page Layout window. Then click **OK** to save your settings.
- Load paper into the printer, then send the print job from your application.

➡ See “Loading Paper” on page 21.

Note:

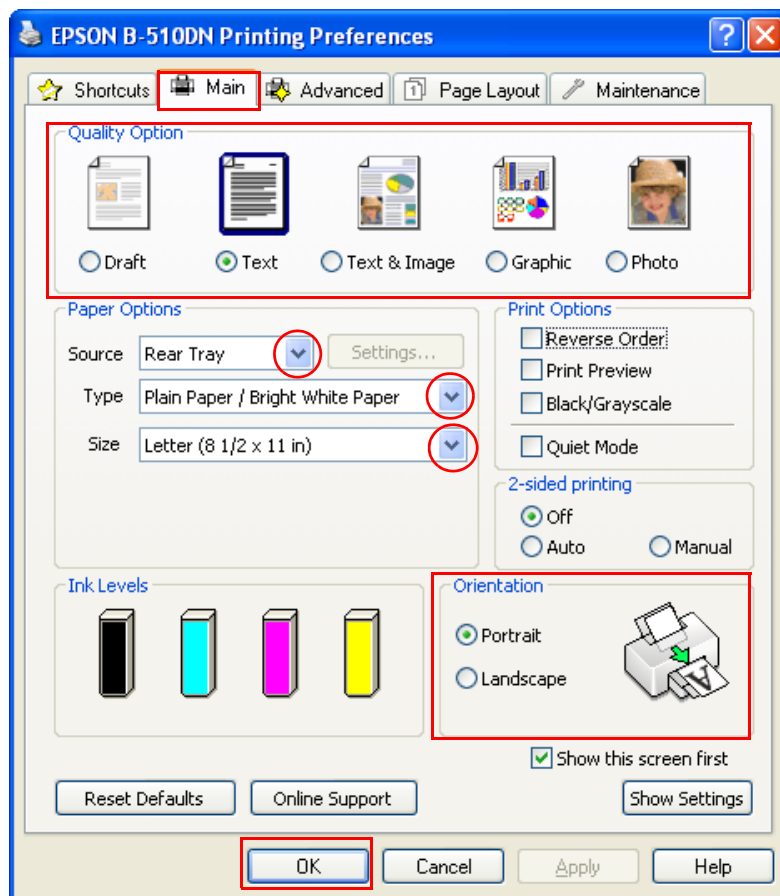
Do not try to pull out your prints before both sides of the page are printed.

Manual Double-sided Printing

Follow the steps below to print odd- and even-numbered pages onto opposite sides of the sheet.

1. Access the printer settings.

➡ See “Accessing the Printer Driver for Windows” on page 14.



2. Click the **Main** tab, then select one of the following Quality Option settings:

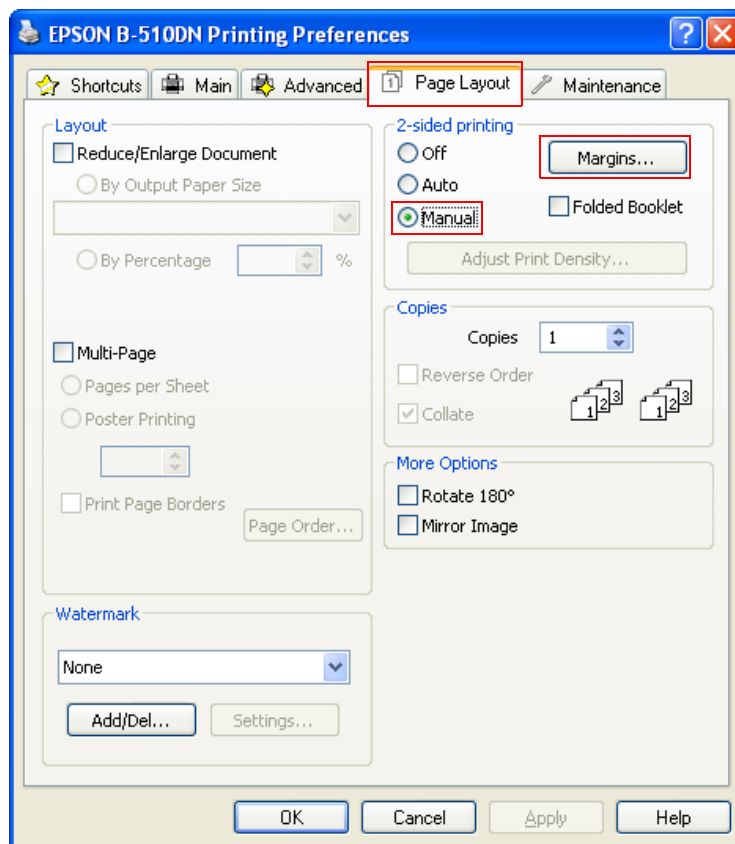
- ☐ **Draft** for rough drafts with reduced print quality
- ☐ **Text** for text-only pages
- ☐ **Text & Image** for higher quality pages with text and images
- ☐ **Graphic** for higher quality graphics
- ☐ **Photo** for good quality and speed

3. Select **Rear Tray** as the Source setting.

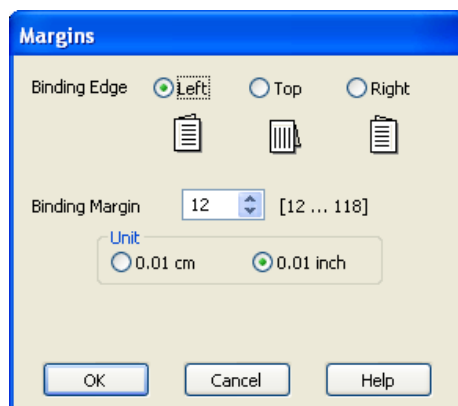
4. Select the appropriate Type setting.

➡ See “Selecting the Correct Paper Type or Media Type” on page 28.

5. Select the appropriate Size setting.
6. Select **Portrait** (tall) or **Landscape** (wide) to change the orientation of your printout.
7. Click the **Page Layout** tab.



8. Select **Manual** under **2-sided printing** to use manual double-sided printing function.
9. Click **Margins** to open the Margins window.



10. Specify the edge of the paper where the binding will be placed. You can choose **Left**, **Top**, or **Right**.

11. Choose **cm** or **inch** as the Unit setting. Then specify the width of the binding margin. You can enter any width from 0.12 to 1.18 inches, or from 0.3 to 3.0 cm.

Note:

The actual binding margin may be different from the specified settings depending on your application. Experiment with a few sheets to examine actual results before printing the entire job.

12. Click **OK** to return to the Page Layout window. Then click **OK** to save your settings.

13. Load paper into the rear sheet feeder, then send the print job from your application. Instructions for generating the even-numbered pages will be displayed while the odd-numbered pages are printed.

➡ See "Loading Paper" on page 21.

14. Follow the on-screen instructions to reload the paper.

Note:

- ☐ *The paper may curl during printing due to the amount of ink used. Should this occur, slightly curl the sheets in the opposite direction before reloading them.*
- ☐ *Align the sheet stack by tapping its edges against a hard, flat surface before reloading the stack.*
- ☐ *Follow the on-screen instructions when reloading the printouts. Otherwise, paper may jam or the binding margins may be incorrect.*
- ☐ *If a paper jam occurs, refer to the following.*
 - ➡ See "The Paper Jams" on page 148.

15. Once the paper is reloaded, click **Resume** to print the even-numbered pages.

Standard Double-sided Printing for Mac OS X 10.5 and 10.6

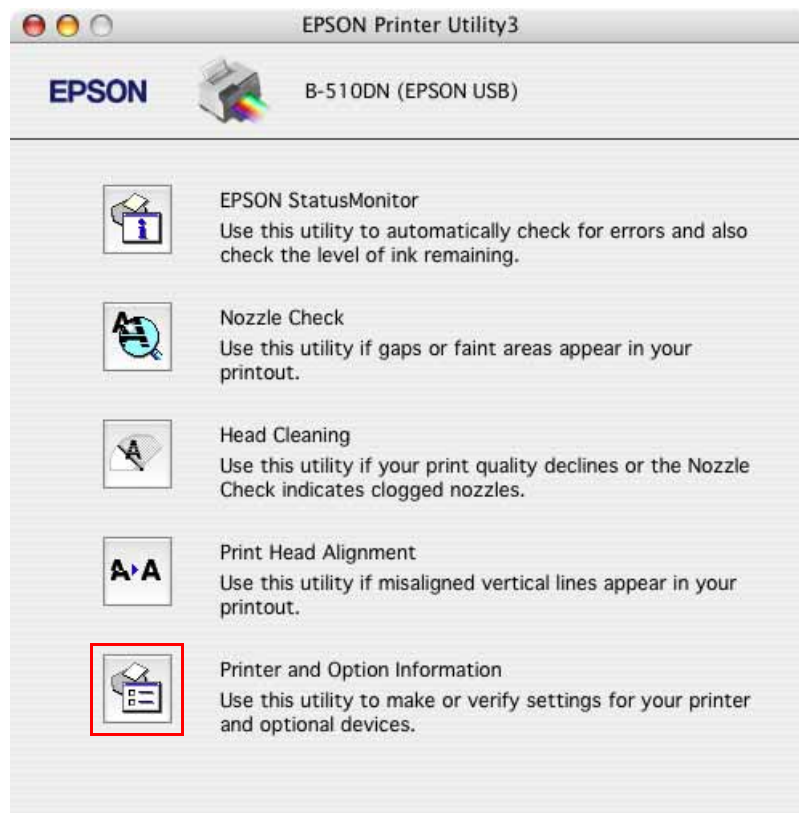
Automatic Double-sided Printing (Using the Duplex Unit)

Follow the steps below to print odd- and even-numbered pages onto opposite sides of the sheet using the duplex unit.

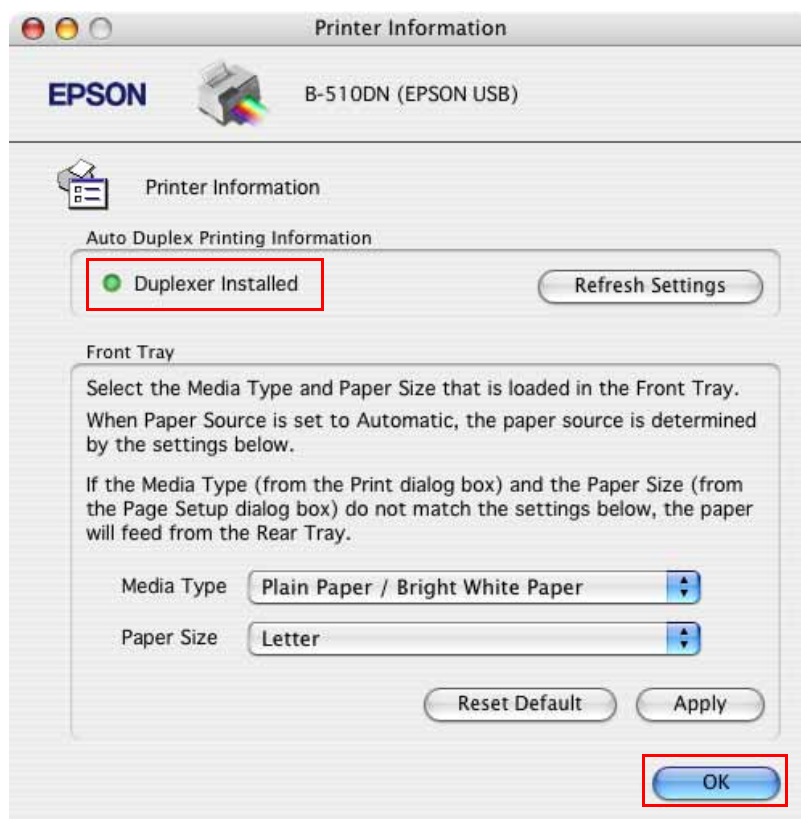
Note:

- ☐ *Automatic double-sided printing supports plain paper only.*
- ☐ *Thick plain paper is not supported for automatic double-sided printing.*

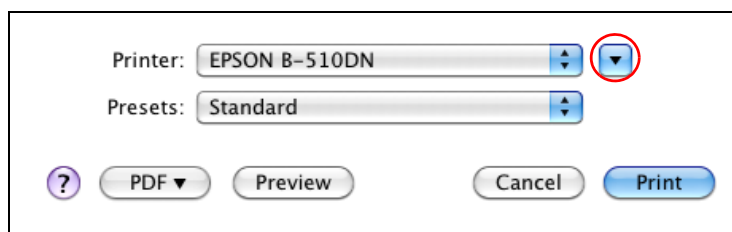
1. Access the EPSON Printer Utility3 dialog.
 - ➔ See “Accessing the Printer Driver for Mac OS X” on page 15.
2. Click the **Printer and Option Information** button.



3. Make sure that **Duplexer Installed** is displayed in the Auto Duplex Printing Information section, and then click **OK**.



4. Close the EPSON Printer Utility3 dialog.
5. Access the Print dialog.
 - ➔ See "Accessing the Printer Driver for Mac OS X" on page 15.



6. Click the ▼ button to extend this dialog.

7. Select the printer you are using as the Printer setting, and then make suitable settings.

Printer: EPSON 8-510DN

Presets: Standard

Copies: 1 ☒ Collated

Pages: ☒ All
☐ From: 1 to: 1

Paper Size: US Letter 8.50 by 11.00 inches

Orientation:

Preview

☒ Auto Rotate

☐ Scale: 296 %

☒ Scale to Fit: ☐ Print Entire Image
☒ Fill Entire Paper

Images per page: 1

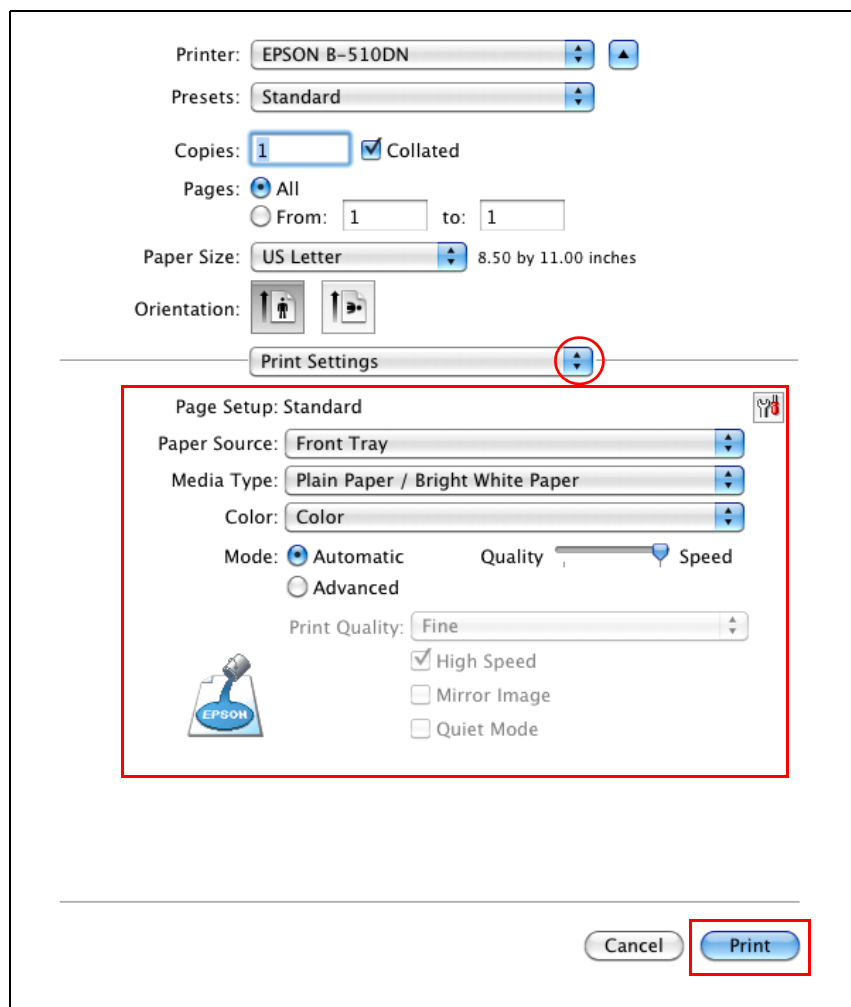
☐ Print 1 copies per page

Cancel Print

Note:

Depending on your application, you may not be able to select some of the items in this dialog. If so, click **Page Setup** on the File menu of your application, and then make suitable settings.

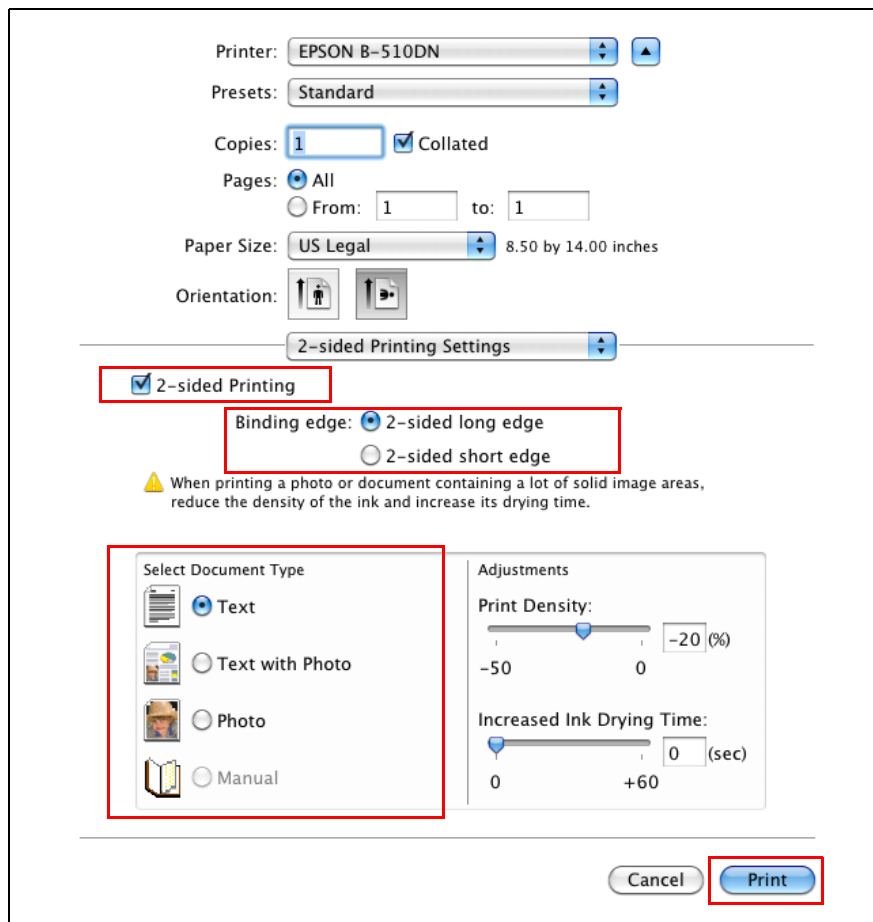
8. Select **Print Settings** from the pop-up menu.



9. Select **Plain Paper/Bright White Paper** as the Media Type setting.

10. Make other settings that you want to use to print. See online help for details of Print Settings.

11. Select **2-sided Printing Settings** from the pop-up menu.



12. Select the **2-sided Printing** check box.

13. Select the Binding edge setting.

14. Select one of the Document Type settings. This automatically adjusts Print Density and Ink Drying Time.

Note:

If you are printing high-density data, such as photos or graphs, we recommend adjusting the Print Density.

15. Load paper into the printer, and click **Print**.

➡ See “Loading Paper” on page 21.

Standard Double-sided Printing for Mac OS X 10.4

Automatic Double-sided Printing (Using the Duplex Unit)

Follow the steps below to print odd- and even-numbered pages onto opposite sides of the sheet using the duplex unit.

Note:

- ❑ Automatic double-sided printing supports plain paper only.
- ❑ Thick plain paper is not supported for automatic double-sided printing.

1. Access the EPSON Printer Utility3 dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.

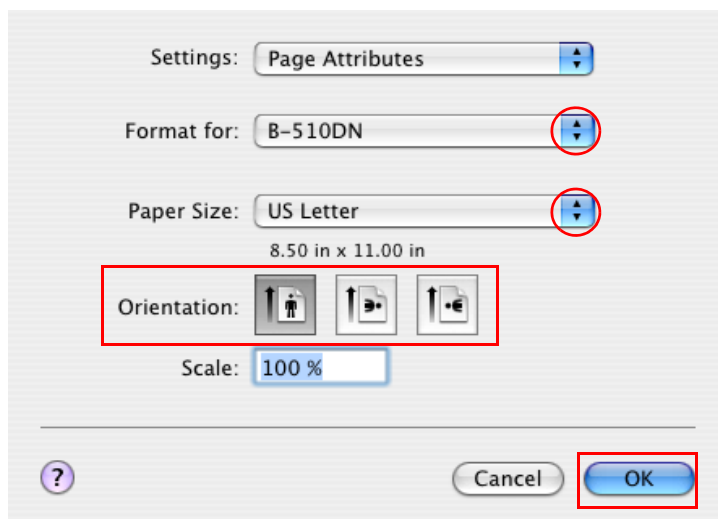
2. Click the **Printer and Option Information** button.

3. Make sure that **Duplexer Installed** is displayed in the Auto Duplex Printing Information section, and then click **OK**.

4. Close the EPSON Printer Utility3 dialog.

5. Access the Page Setup dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



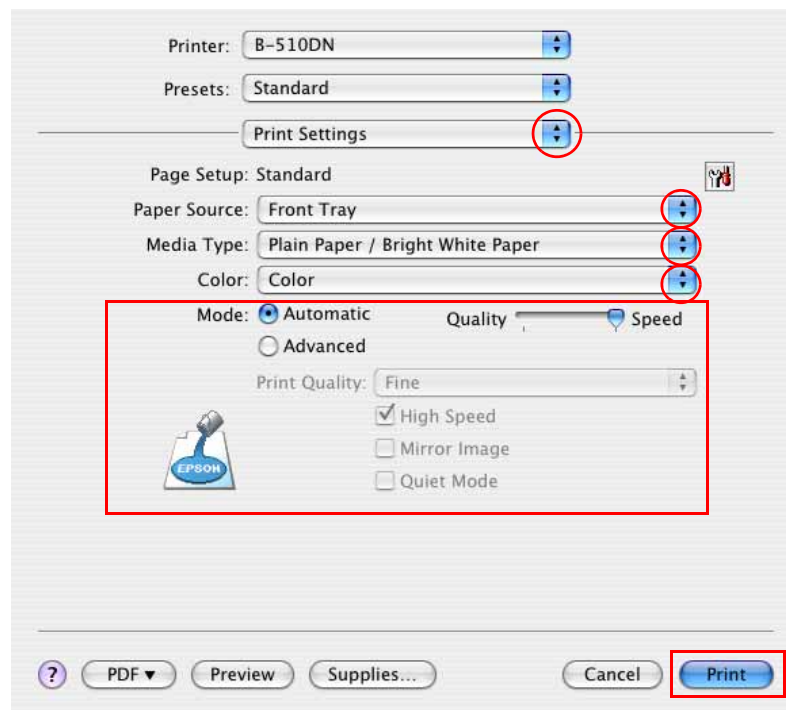
6. Select the printer you are using as the Format for setting.

7. Select **A4**, **Letter**, or **B5** as the Paper Size setting.

8. Select the appropriate Orientation setting, and click **OK** to close the Page Setup dialog.

9. Access the Print dialog.

➔ See “Accessing the Printer Driver for Mac OS X” on page 15.

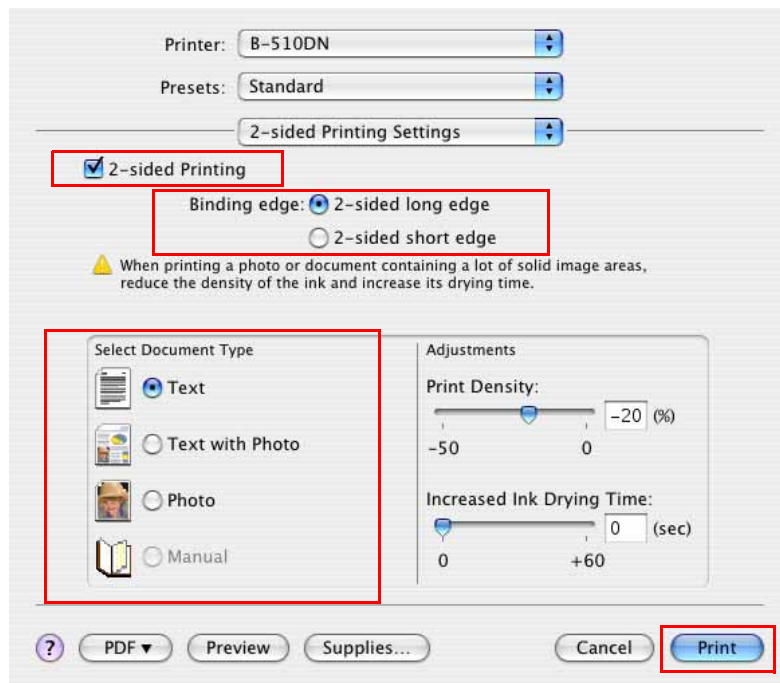


10. Select **Print Settings** from the pop-up menu.

11. Select **Plain Paper / Bright White Paper** as the Media Type setting.

12. Make the settings that you want to use to print. See online help for details of Print Settings.

13. Select **2-sided Printing Settings** from the pop-up menu.



14. Select the **2-sided Printing** check box.

15. Select the Binding edge setting.

16. Select one of the Document Type settings. This automatically adjusts Print Density and Ink Drying Time.

Note:

If you are printing high-density data, such as photos or graphs, we recommend adjusting the Print Density.

17. Load paper into the printer, and click **Print**.

➡ See “Loading Paper” on page 21.

Folded Booklet Double-sided Printing (for Windows only)

Manual double-sided printing

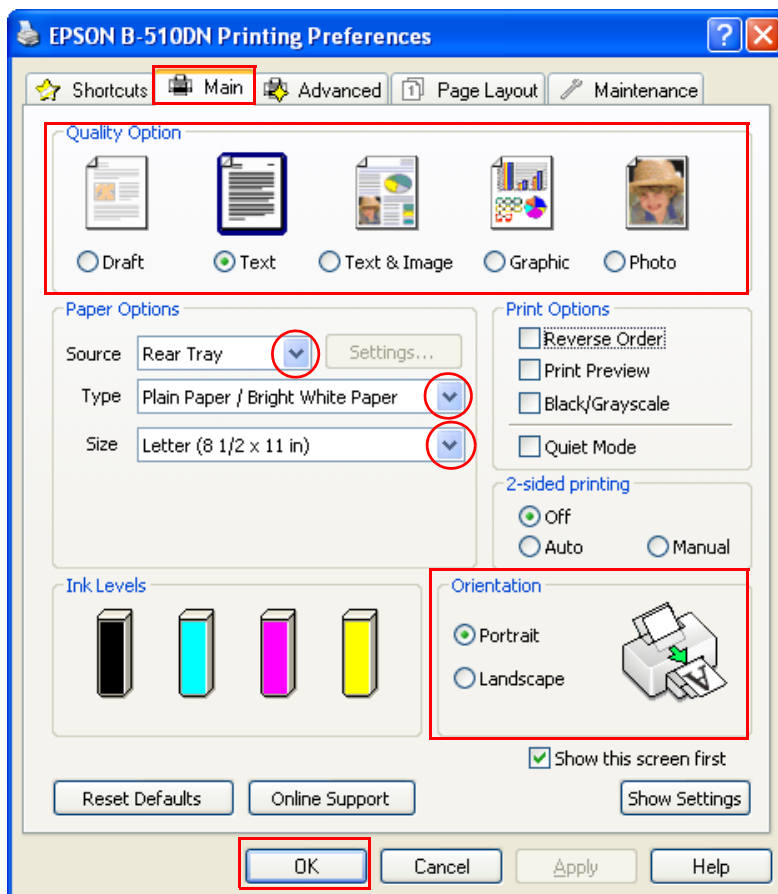
Use the following steps to create a folded booklet.

Note:

Folded booklet double-sided printing function is available only when manual double-sided printing is set.

1. Access the printer settings.

➔ See “Accessing the Printer Driver for Windows” on page 14.



2. Click the **Main** tab, then select one of the following Quality Option settings:

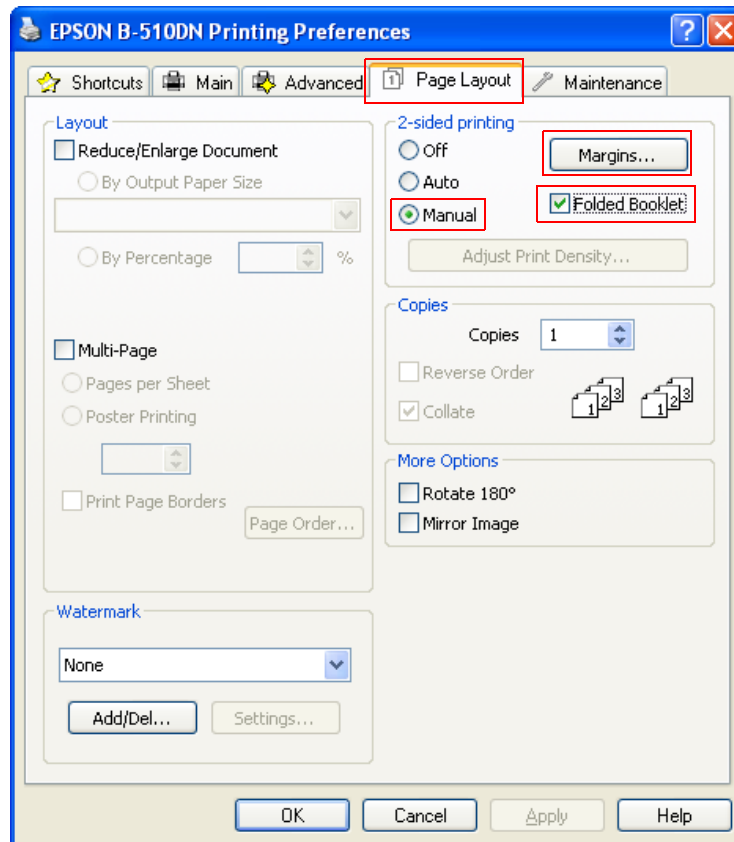
- ☐ **Draft** for rough drafts with reduced print quality
- ☐ **Text** for text-only pages
- ☐ **Text & Image** for higher quality pages with text and images
- ☐ **Graphic** for higher quality graphics
- ☐ **Photo** for good quality and speed

3. Select **Rear Tray** as the Source setting.

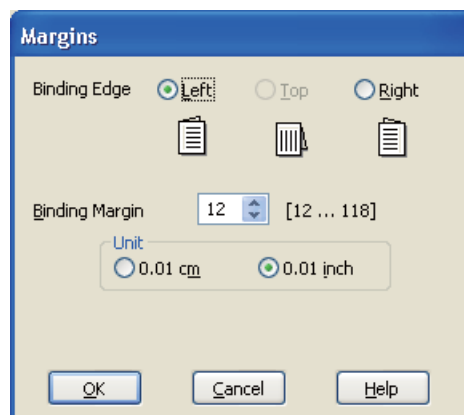
4. Select the appropriate Type setting.

➔ See “Selecting the Correct Paper Type or Media Type” on page 28.

5. Select the appropriate Size setting.
6. Select **Portrait** (tall) or **Landscape** (wide) to change the orientation of your printout.
7. Click the **Page Layout** tab and select **Manual** under **2-sided Printing**. Then select the **Folded Booklet** check box.



8. Click **Margins** to open the Margins window.

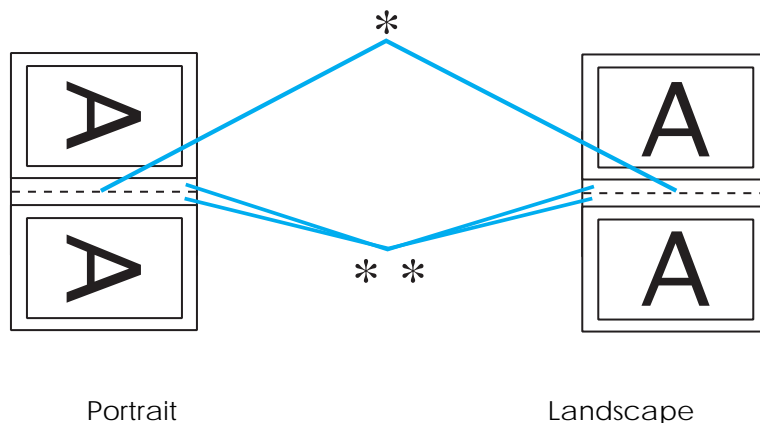


9. Specify the edge of the paper where the binding will be placed. You can choose **Left**, **Top**, or **Right**.

Note:

When you select **Portrait** as the Orientation setting, the **Left** or **Right** binding positions are available. The **Top** binding position is available when you select **Landscape** as the Orientation setting.

10. Choose **cm** or **inch** as the Unit setting. Specify the width of the binding margin.



* : Folding edge

** : Margin

You can enter any width from 0.12 to 1.18 inches, or from 0.3 to 3.0 cm. The specified margin width will be used on both sides of the fold. For example, if you specify a 1 inch margin, you will get a 2 inch margin (a margin of 1 inch will be placed on each side of the fold).

11. Click **OK** to return to the Page Layout window. Then click **OK** to save your settings.
12. Load paper into the rear sheet feeder, then send the print job from your application. Instructions for printing the inside pages will be displayed while the outside pages are printed.

➡ See “Loading Paper” on page 21.

13. Follow the on-screen instructions to reload the paper.

Note:

- ☐ The paper may curl during printing due to the amount of ink used. Should this occur, slightly curl the sheets in the opposite direction before reloading them.
- ☐ Align the sheet stack by tapping its edges against a hard, flat surface before reloading it in the printer.

- ❑ *Follow the instructions provided when reloading the printouts. Otherwise, paper may jam or the binding margins may be incorrect.*
- ❑ *If a paper jam occurs, refer to the following.*
 - ➔ *See “The Paper Jams” on page 148.*

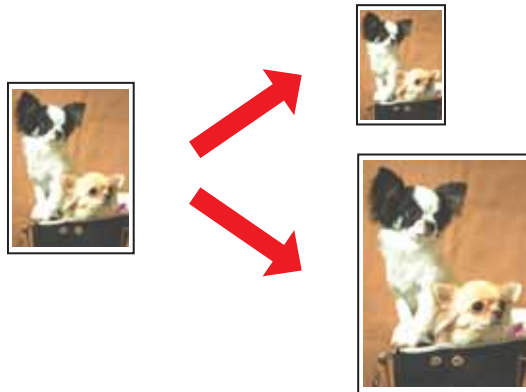
14. Once the paper is reloaded, click **Resume** to print the inside pages.

15. Once printing is complete, fold the sheets and bind them together using a stapler or other binding method.

Fit to Page Printing

You can use the Fit to Page printing function when you want to print, for example, a letter size document on another size paper.

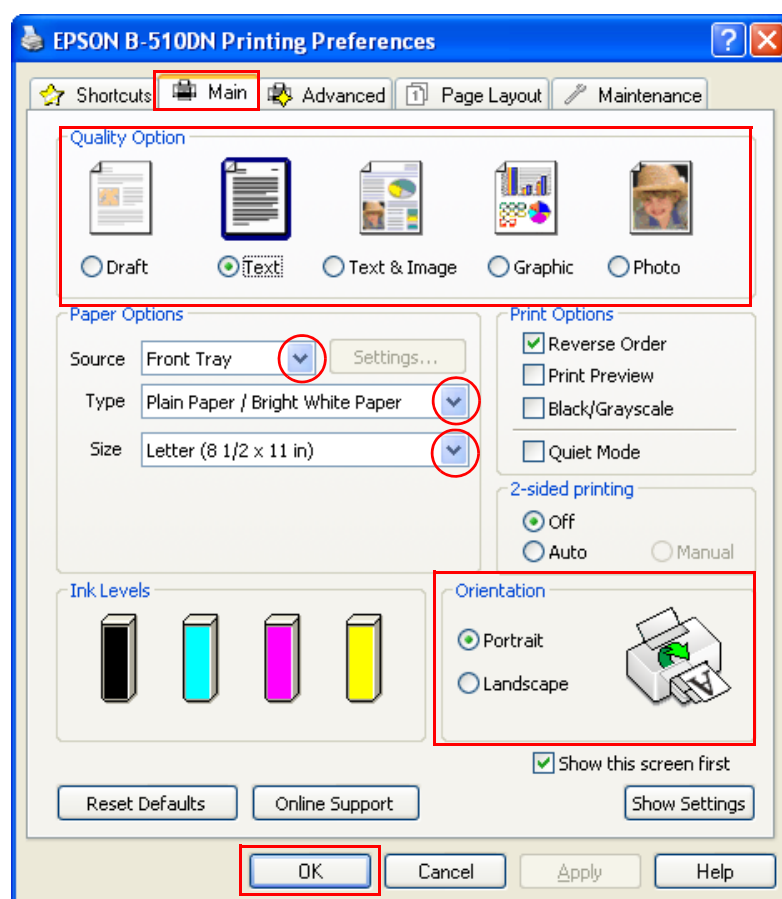
Fit to Page printing automatically resizes your page to the paper size you select. You can also resize your page manually.



Printer Settings for Windows

1. Access the printer settings.

➔ See “Accessing the Printer Driver for Windows” on page 14.



2. Click the **Main** tab, then select one of the following Quality Option settings:

- ☐ **Draft** for rough drafts with reduced print quality
- ☐ **Text** for text-only pages
- ☐ **Text & Image** for higher quality pages with text and images
- ☐ **Graphic** for higher quality graphics
- ☐ **Photo** for good quality and speed

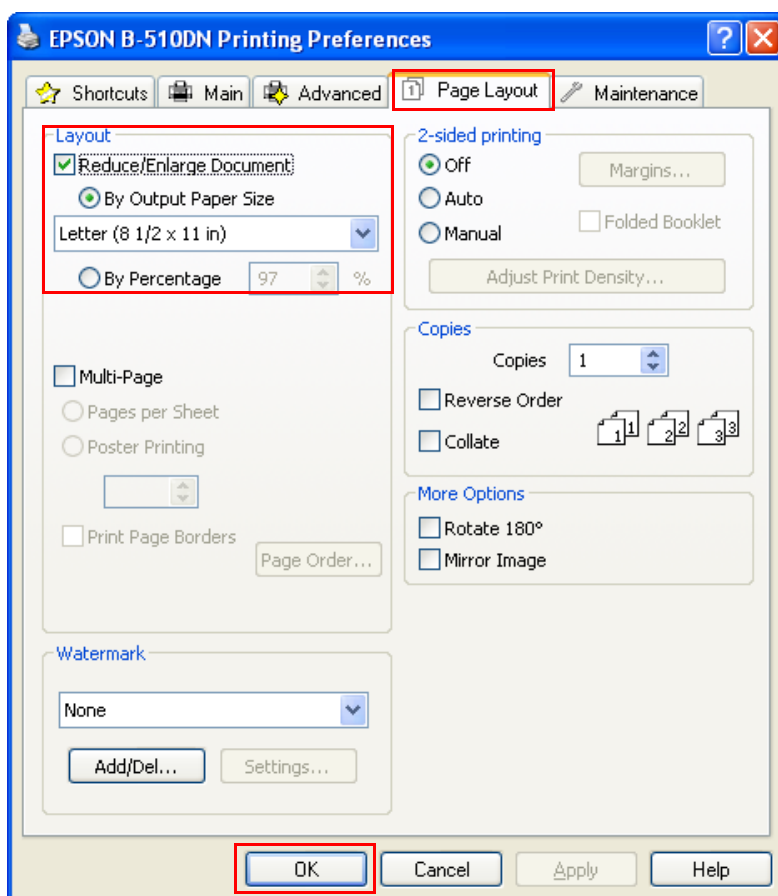
3. Select the paper source as the Source setting.

4. Select the appropriate Type setting.

➔ See “Selecting the Correct Paper Type or Media Type” on page 28.

5. Select the appropriate Size setting.

6. Select **Portrait** (tall) or **Landscape** (wide) to change the orientation of your printout.
7. Click the **Page Layout** tab, then select the **Reduce/Enlarge Document** check box.



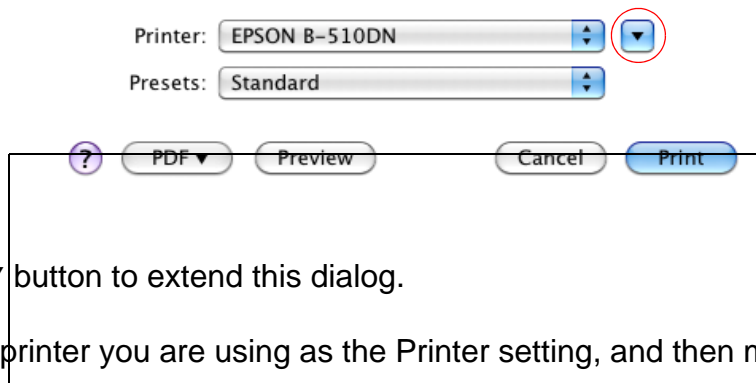
8. Do one of the following:
 - ☐ If you selected **By Output Paper Size**, select the size of the paper you are using from the drop-down list.
 - ☐ If you selected **By Percentage**, use the arrows to choose a percentage.
9. Click **OK** to close the printer settings window.

After completing the steps above, print one test copy and examine the results before printing an entire job.

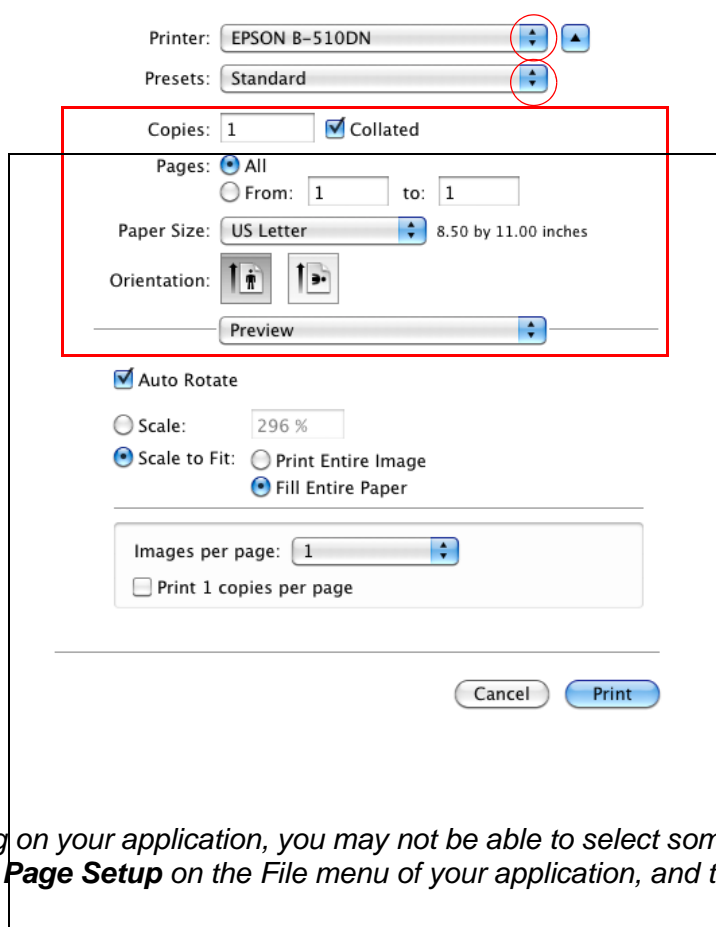
Printer Settings for Mac OS X 10.5 and 10.6

1. Access the Print dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



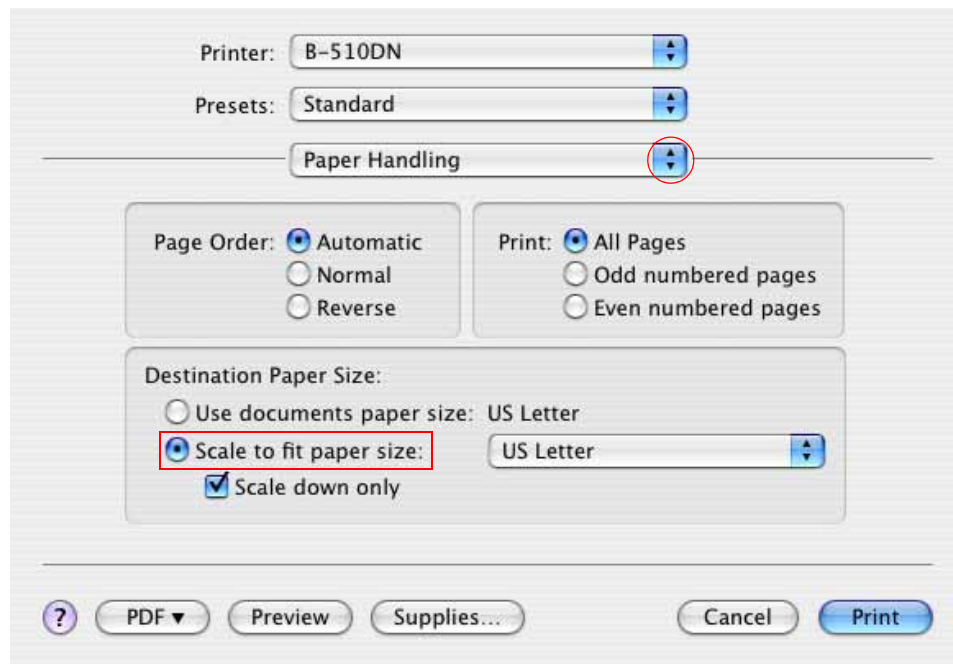
2. Click the ▼ button to extend this dialog.
3. Select the printer you are using as the Printer setting, and then make suitable settings.



Note:

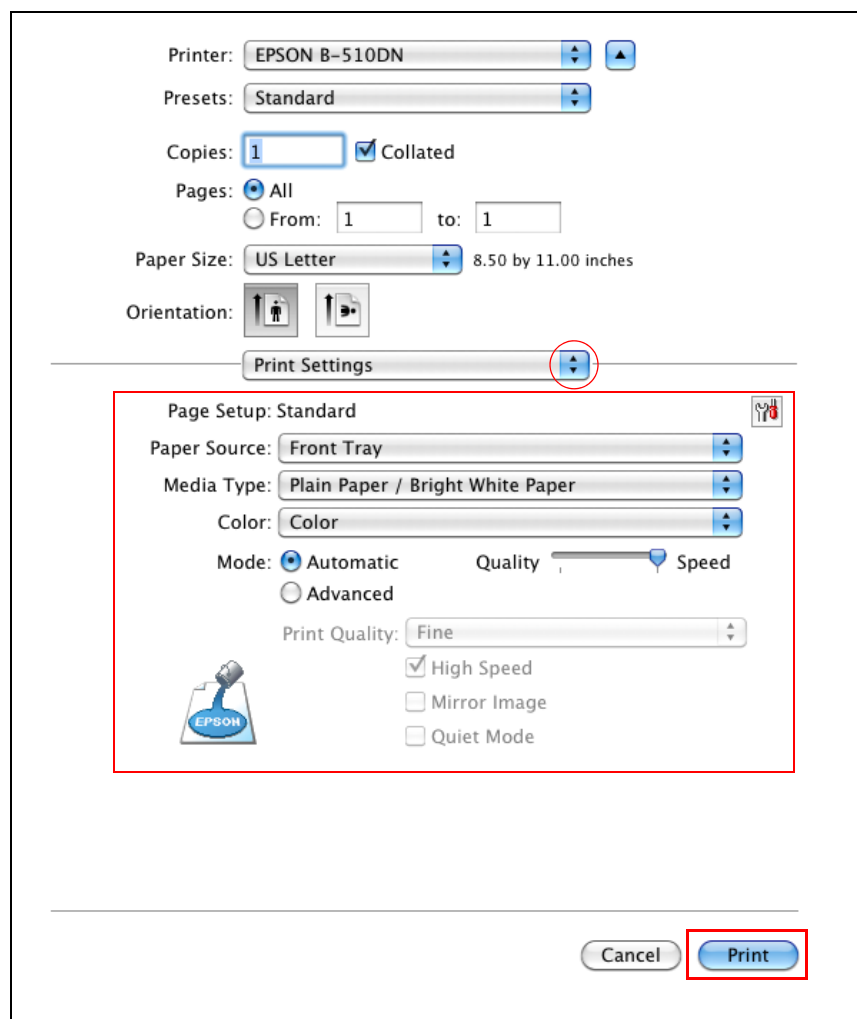
Depending on your application, you may not be able to select some of the items in this dialog. If so, click **Page Setup** on the **File** menu of your application, and then make suitable settings.

4. Select **Paper Handling** from the pop-up menu.



5. Select the **Scale to fit paper size**.
6. Make sure that the appropriate size is displayed in Destination Paper Size.

7. Select **Print Settings** from the pop-up menu.



8. Make the settings that you want to use to print. See online help for details of Print Settings.

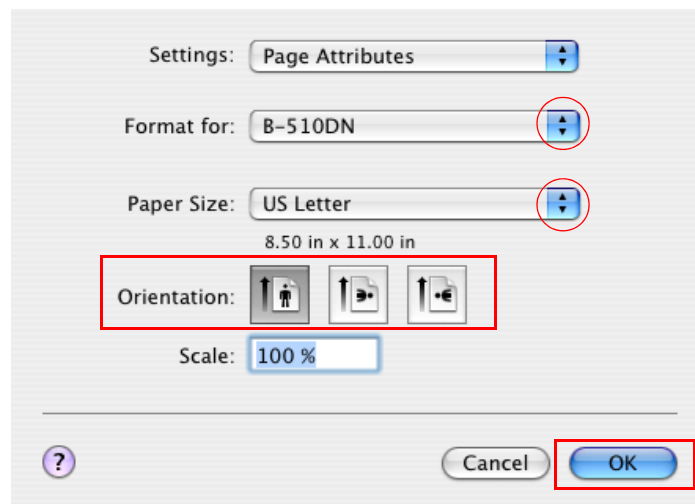
➡ See “Selecting the Correct Paper Type or Media Type” on page 28.

After completing the steps above, print one test copy and examine the results before printing an entire job.

Printer Settings for Mac OS X 10.4

1. Access the Page Setup dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.

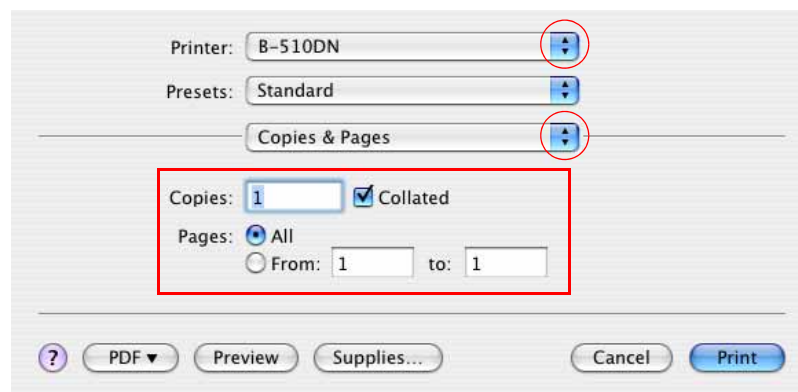


2. Select the printer you are using as the Format for setting and then make suitable settings.

3. Click **OK** to close the Page Setup dialog.

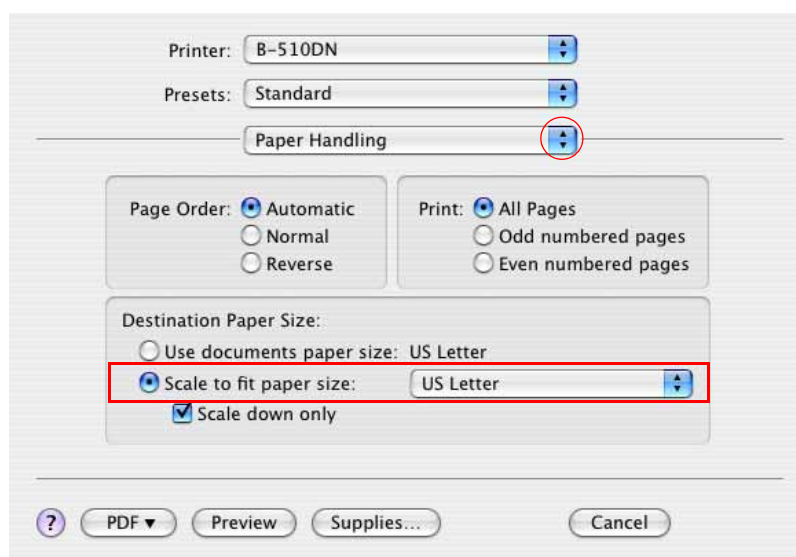
4. Access the Print dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.

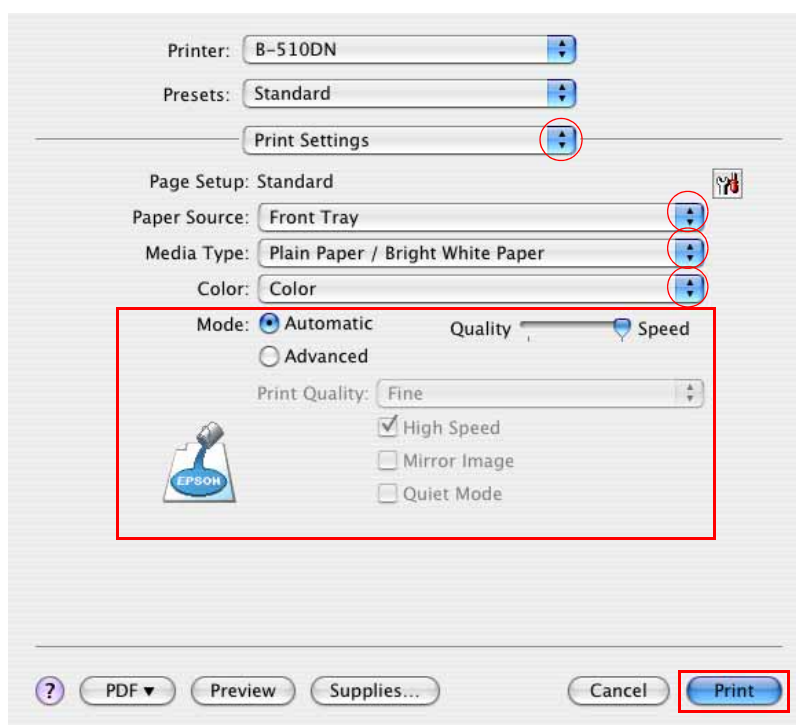


5. Select the printer you are using as the Printer setting, then make the Copies & Pages settings.

6. Select **Paper Handling** from the pop-up menu.



7. Select **Scale to fit paper size** as the Destination Paper Size.
8. Select the appropriate paper size from the pop-up menu.
9. Select **Print Settings** from the pop-up menu.



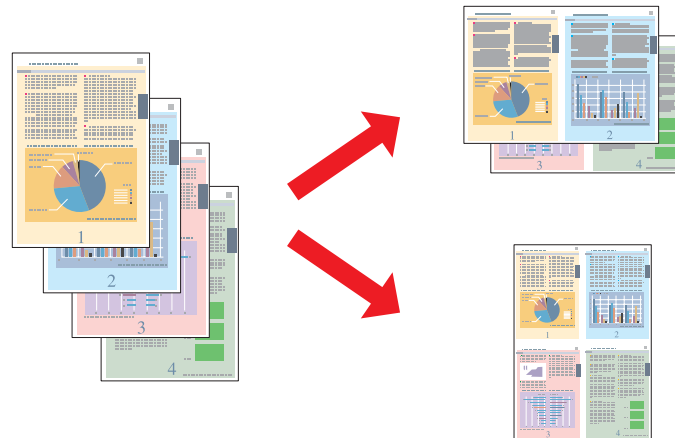
10. Make the settings that you want to use to print. See online help for details of Print Settings.

➡ See “Selecting the Correct Paper Type or Media Type” on page 28.

After completing the steps above, print one test copy and examine the results before printing an entire job.

Pages Per Sheet Printing

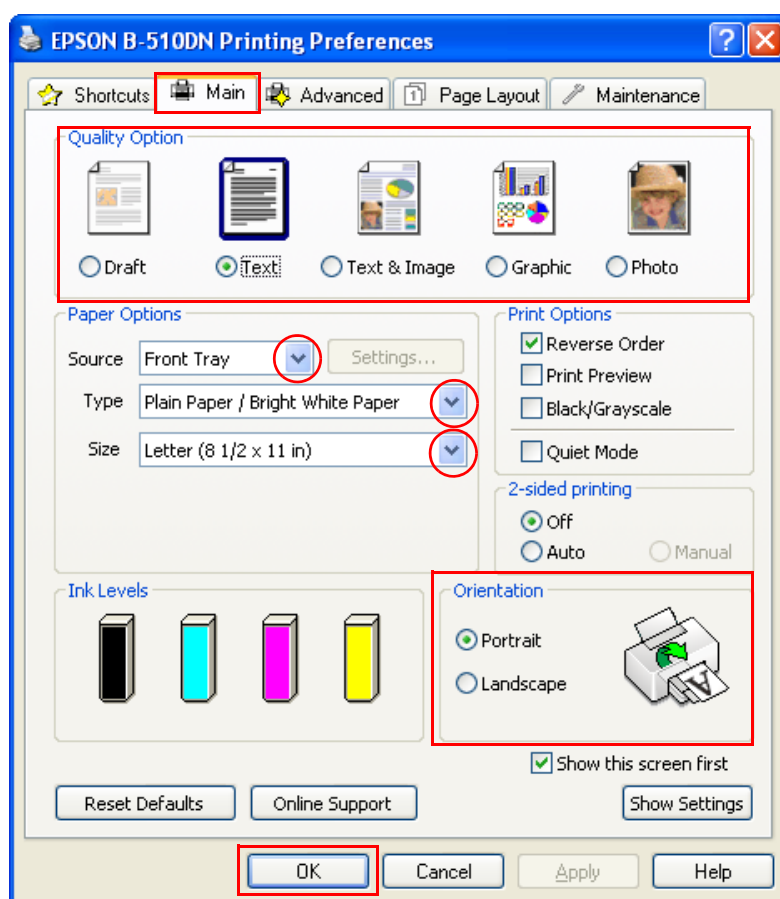
Pages Per Sheet printing allows you to print two or four pages on single sheets of paper.



Printer Settings for Windows

1. Access the printer settings.

➔ See “Accessing the Printer Driver for Windows” on page 14.



2. Click the **Main** tab, then select one of the following Quality Option settings:

- ☐ **Draft** for rough drafts with reduced print quality
- ☐ **Text** for text-only pages
- ☐ **Text & Image** for higher quality pages with text and images
- ☐ **Graphic** for higher quality graphics
- ☐ **Photo** for good quality and speed

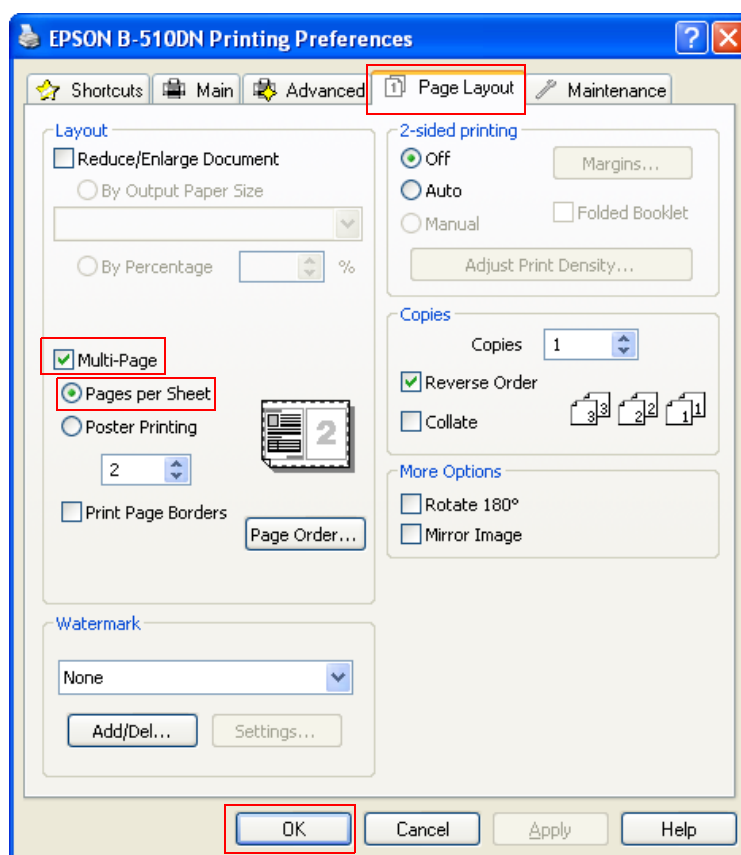
3. Select the paper source as the Source setting.

4. Select the appropriate Type setting.

➔ See “Selecting the Correct Paper Type or Media Type” on page 28.

5. Select the appropriate Size setting.

6. Select **Portrait** (tall) or **Landscape** (wide) to change the orientation of your printout.
7. Click the **Page Layout** tab, select **Multi-Page**, then select **Pages Per Sheet**.



8. Select from the following settings for Pages Per Sheet printing:

2, 4	Prints two or four pages of your document on a single piece of paper.
Print Page Borders	Prints frames around the pages printed on each sheet.
Page Order	Allows you to specify the order in which the pages will be printed on the sheet of paper. Some settings may be unavailable, depending on the Orientation setting on the Main window.

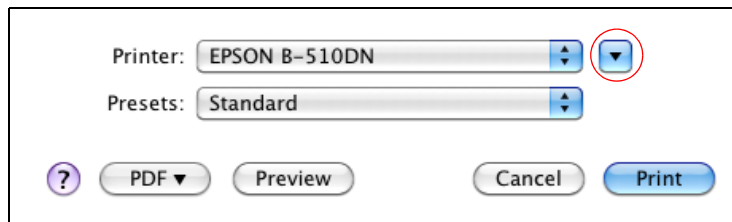
9. Click **OK** to close the printer settings window.

After completing the steps above, print one test copy and examine the results before printing an entire job.

Printer Settings for Mac OS X 10.5 and 10.6

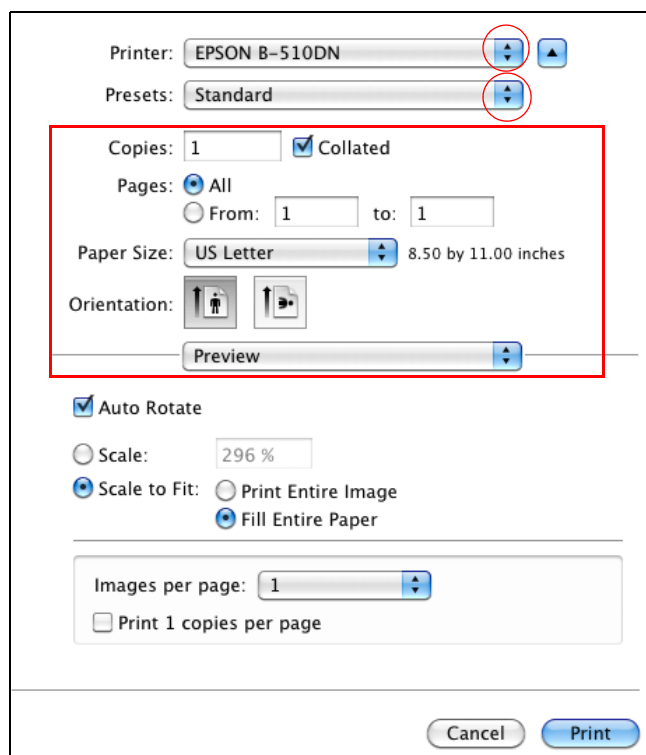
1. Access the Print dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



2. Click the ▼ button to extend this dialog.

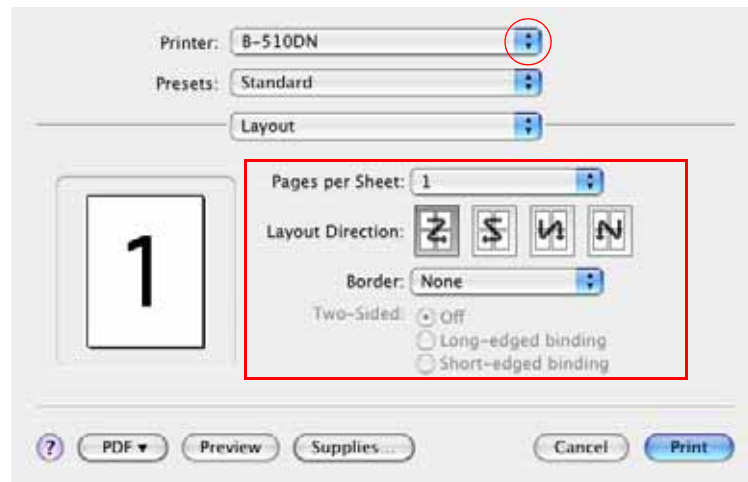
3. Select the printer you are using as the Printer setting, and then make suitable settings.



Note:

Depending on your application, you may not be able to select some of the items in this dialog. If so, click **Page Setup** on the File menu of your application, and then make suitable settings.

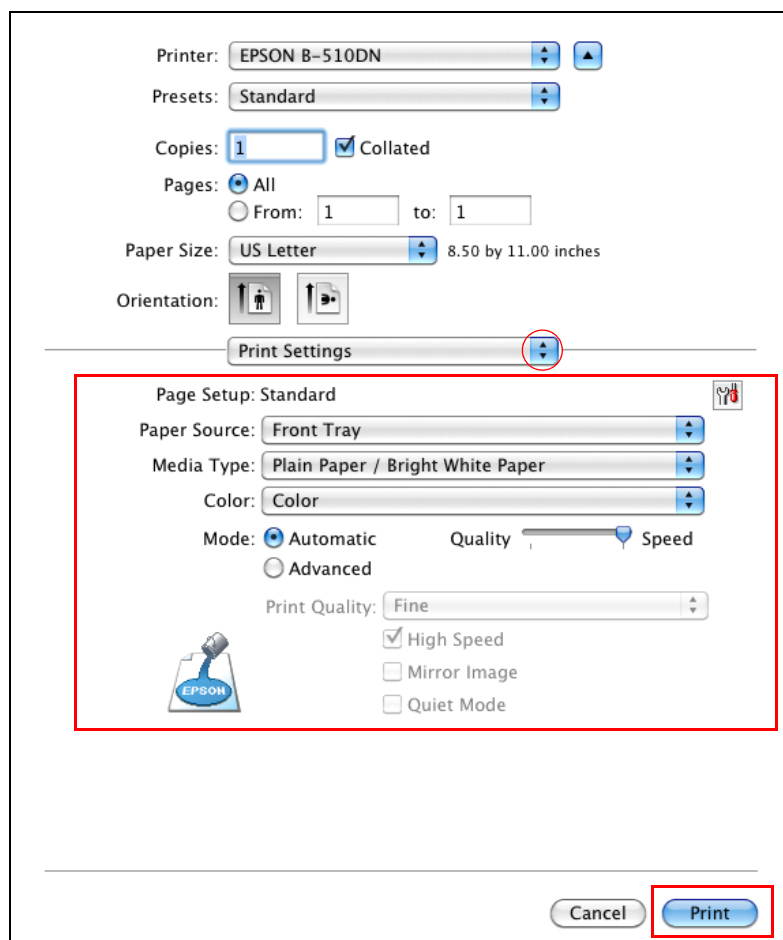
4. Select **Layout** from the pop-up menu.



5. Select from the following settings:

Pages per Sheet	Prints multiple pages of your document on a single piece of paper. You can choose from 1, 2, 4, 6, 9, or 16 .
Layout Direction	Allows you to specify the order in which the pages will be printed on the sheet of paper.
Border	Prints a border around the pages printed on each sheet. You can choose from None, Single Hairline, Single Thin Line, Double Hairline, or Double Thin Line .

6. Select **Print Settings** from the pop-up menu.



7. Make the settings that you want to use to print. See online help for details of Print Settings.

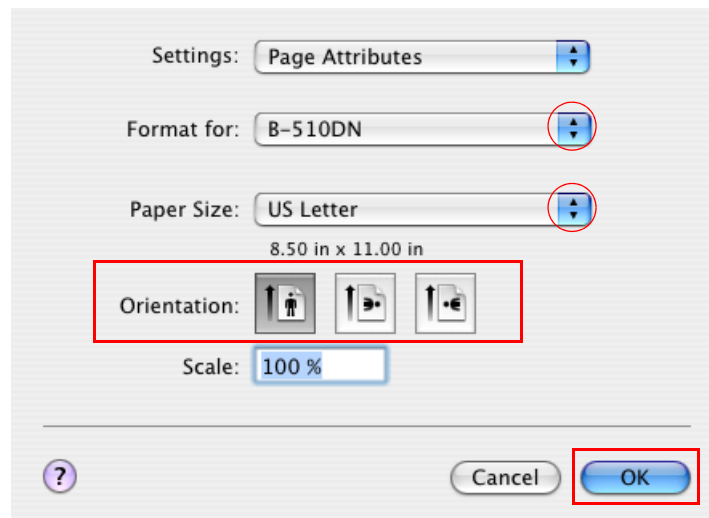
➡ See “Selecting the Correct Paper Type or Media Type” on page 28.

After completing the steps above, print one test copy and examine the results before printing an entire job.

Printer Settings for Mac OS X 10.4

1. Access the Page Setup dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.

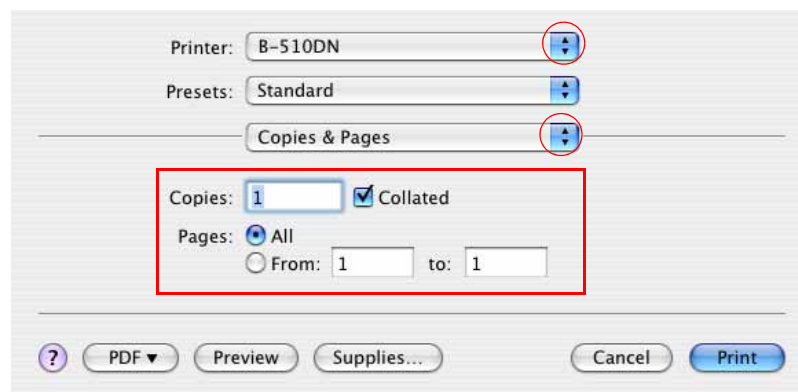


2. Select the printer you are using as the Format for setting, and then make suitable settings.

3. Click **OK** to close the Page Setup dialog.

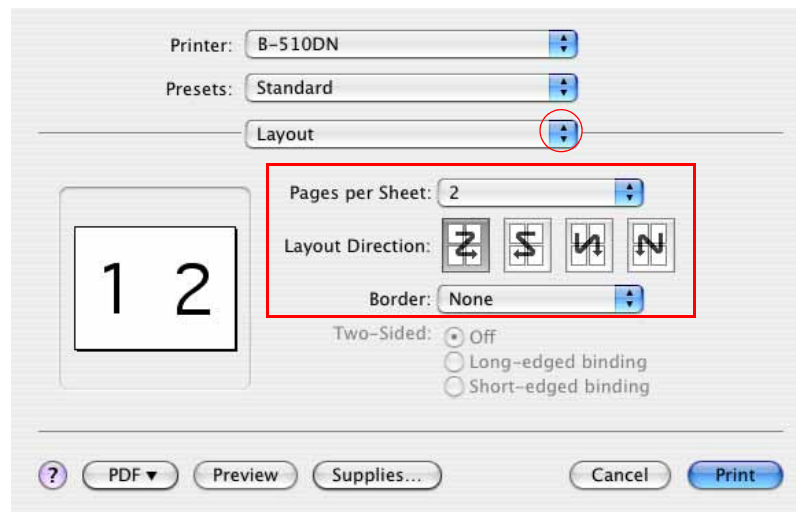
4. Access the Print dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.



5. Select the printer you are using as the Printer setting, then make the Copies & Pages settings.

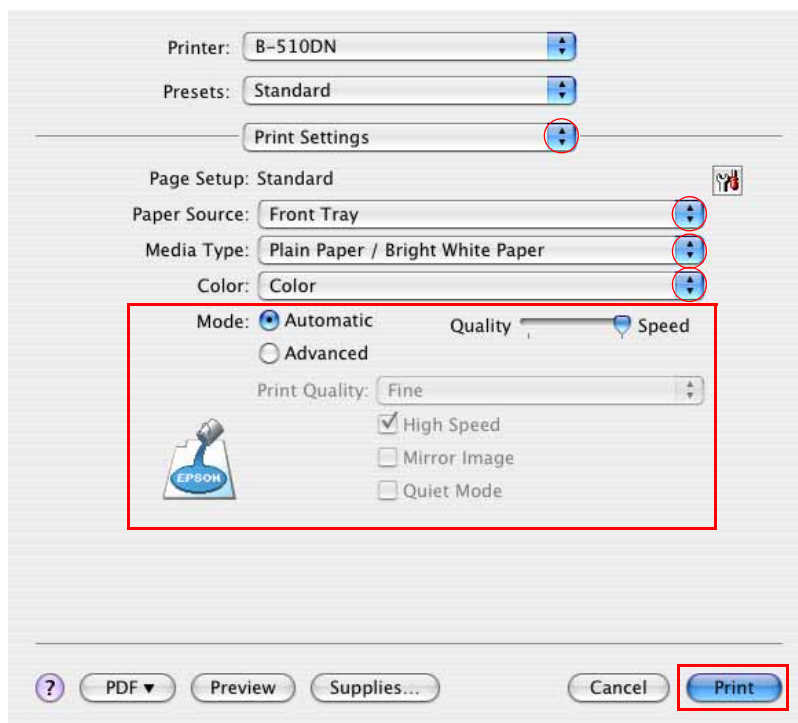
6. Select **Layout** from the pop-up menu.



7. Select from the following settings:

Pages per Sheet	Prints multiple pages of your document on a single piece of paper. You can choose from 1, 2, 4, 6, 9, or 16 .
Layout Direction	Allows you to specify the order in which the pages will be printed on the sheet of paper.
Border	Prints a border around the pages printed on each sheet. You can choose from None, Single Hairline, Single Thin Line, Double Hairline, or Double Thin Line .

8. Select **Print Settings** from the pop-up menu.



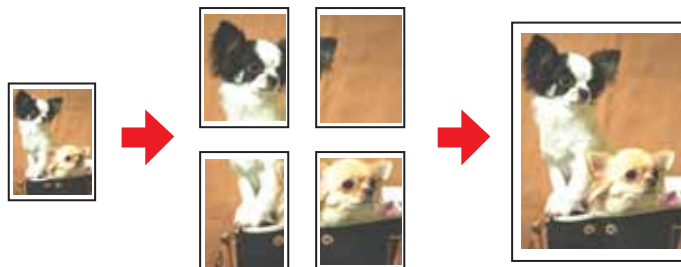
9. Make the settings that you want to use to print. See online help for details of Print Settings.

➡ See “Selecting the Correct Paper Type or Media Type” on page 28.

After completing the steps above, print one test copy and examine the results before printing an entire job.

Poster Printing (for Windows only)

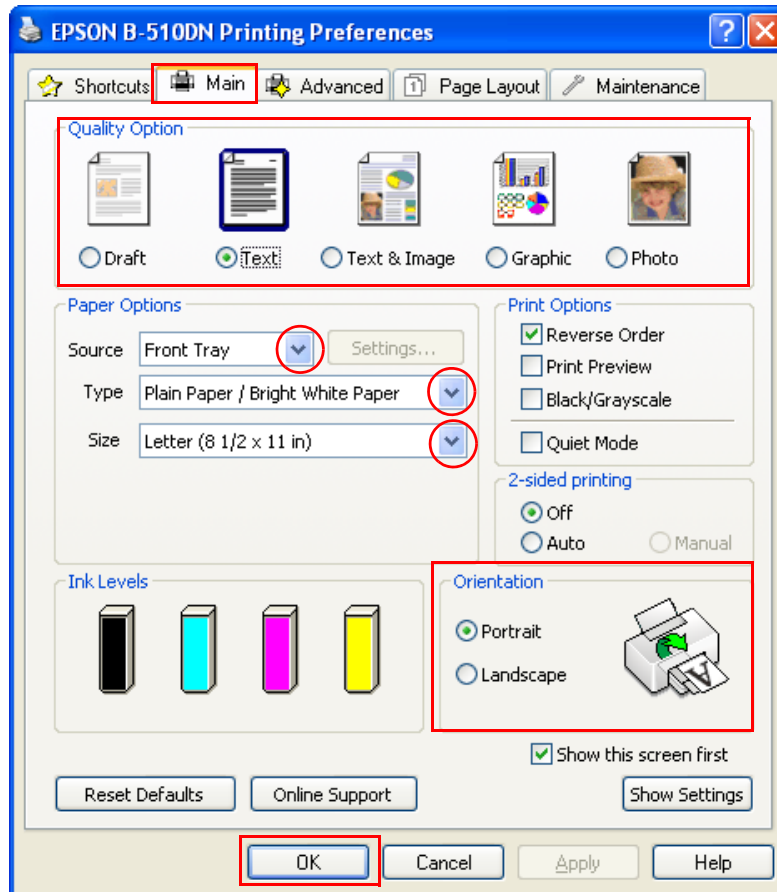
Poster printing allows you to print poster-size images by enlarging one page to cover several sheets of paper.



Printer Settings

1. Access the printer settings.

➡ See “Accessing the Printer Driver for Windows” on page 14.



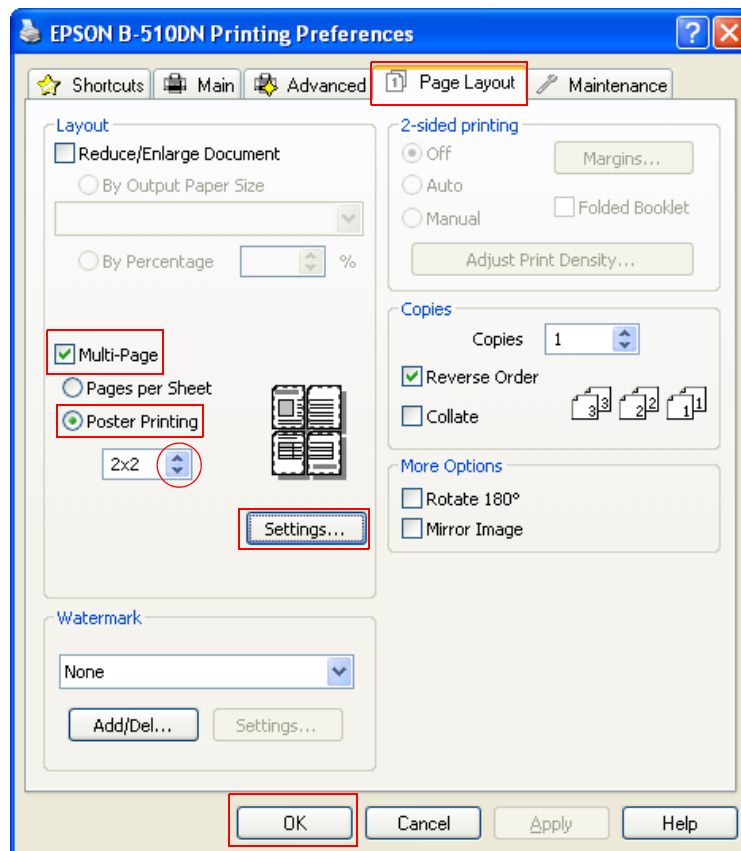
2. Click the **Main** tab, then select one of the following Quality Option settings:

- ☐ **Draft** for rough drafts with reduced print quality
- ☐ **Text** for text-only documents
- ☐ **Text & Image** for higher quality pages with text and images
- ☐ **Graphic** for higher quality graphics
- ☐ **Photo** for good quality and speed

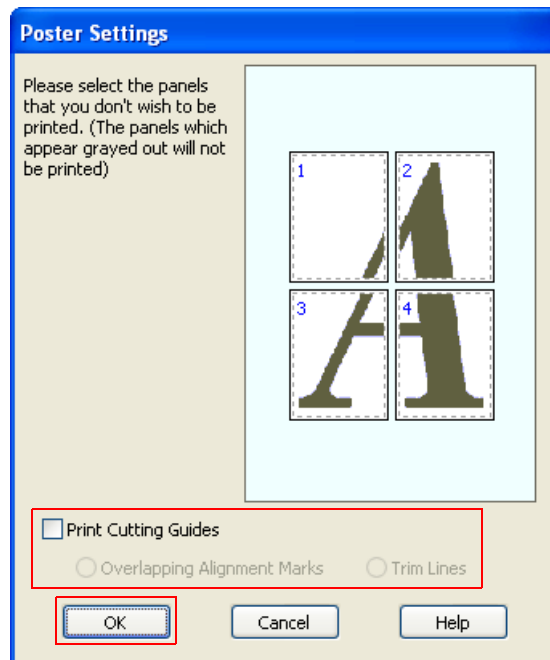
3. Select the paper source as the Source setting.

4. Select the appropriate Type setting.

- ➔ See “Selecting the Correct Paper Type or Media Type” on page 28.
5. Select the appropriate Size setting.
 6. Select **Portrait** (tall) or **Landscape** (wide) to change the orientation of your printout.
 7. Click the **Page Layout** tab and select **Multi-Page**, then select **Poster Printing**. Click the up or down arrow to select **2x1**, **2x2**, **3x3**, or **4x4**.



8. Click **Settings** to adjust the way your poster will be printed. The Poster Settings window opens.



9. Make the following settings:

Print Cutting Guides	Prints guide lines for cutting.
Overlapping Alignment Marks	Slightly overlaps the panels and prints alignment markers so that the panels can be aligned more precisely.
Trim Lines	Prints border lines on the panels to guide you when trimming the pages.

Note:

If you want to print only a few of the panels without printing the entire poster, click the panels that you do not want to print.

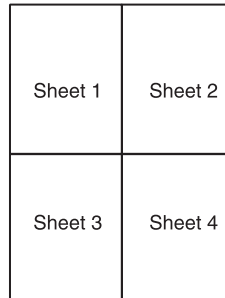
10. Click **OK** to close the Poster Settings window.

After completing the steps above, print one test copy and examine the results before printing an entire job. Then follow the instructions.

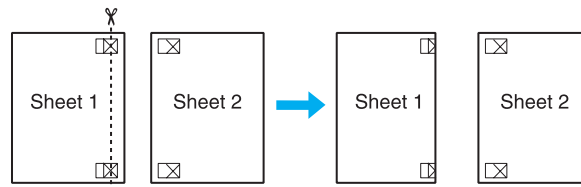
➡ See “How to Make a Poster from Your Printouts” on page 93.

How to Make a Poster from Your Printouts

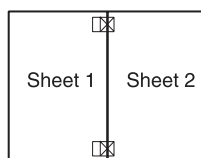
Here is an example of how to make a poster with **2x2** selected under Poster Printing and **Overlapping Alignment Marks** selected as the Print Cutting Guides.



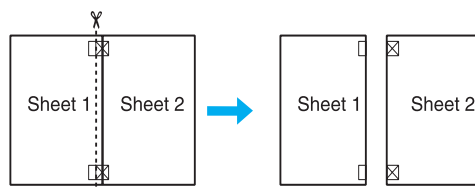
1. Cut off the margin of Sheet 1 along a vertical line through the center of the top and bottom cross marks:



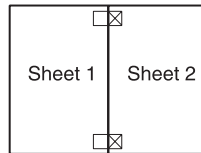
2. Place the edge of Sheet 1 on top of Sheet 2 and align the cross marks, then temporarily tape the two sheets together from the back:



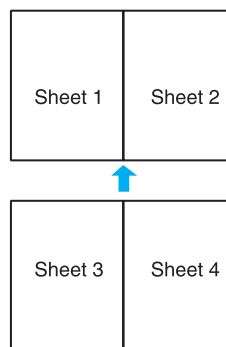
3. Cut the taped sheets in two along a vertical line through the alignment markers (this time, a line to the left of the cross marks):



- Align the edges of the paper using the alignment markers and tape them together from the back:



- Repeat the instructions from step 1 to step 4 to tape Sheets 3 and 4 together.
- Repeat the instructions from step 1 to step 4 to tape the top and bottom edges of the paper:



- Cut off the remaining margins.

Watermark Printing (for Windows only)

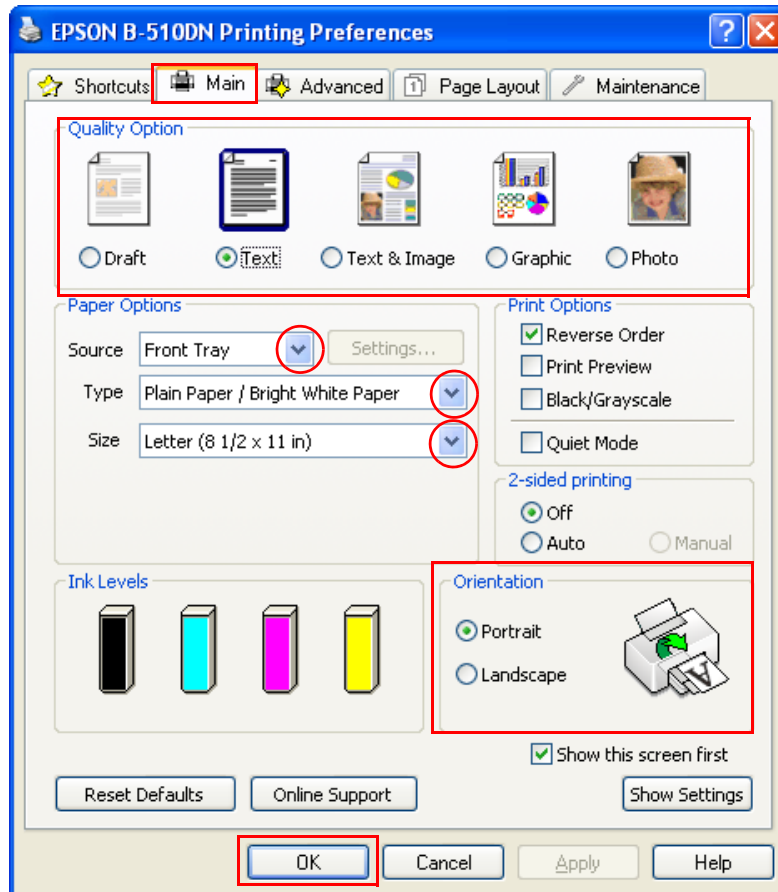
Watermark printing allows you to print a text-based or image-based watermark on your document.



Printing the Watermark

1. Access the printer settings.

➡ See “Accessing the Printer Driver for Windows” on page 14.



2. Click the **Main** tab, then select one of the following Quality Option settings:

- ☐ **Draft** for rough drafts with reduced print quality
- ☐ **Text** for text-only documents with higher text quality
- ☐ **Text & Image** for higher quality documents with text and images

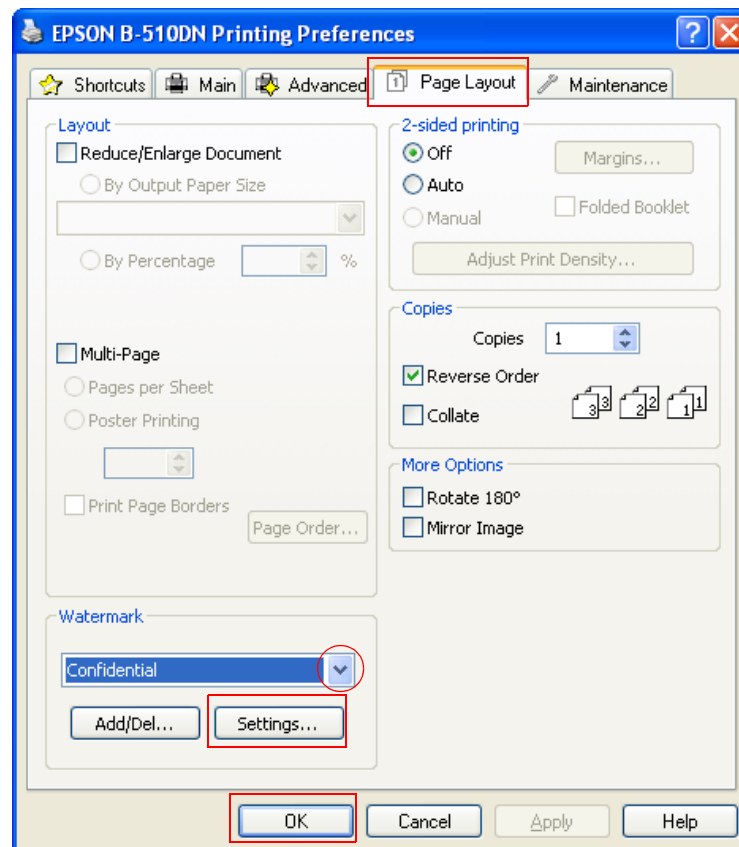
3. Select the paper source as the Source setting.

4. Select the appropriate Type setting.

➡ See “Selecting the Correct Paper Type or Media Type” on page 28.

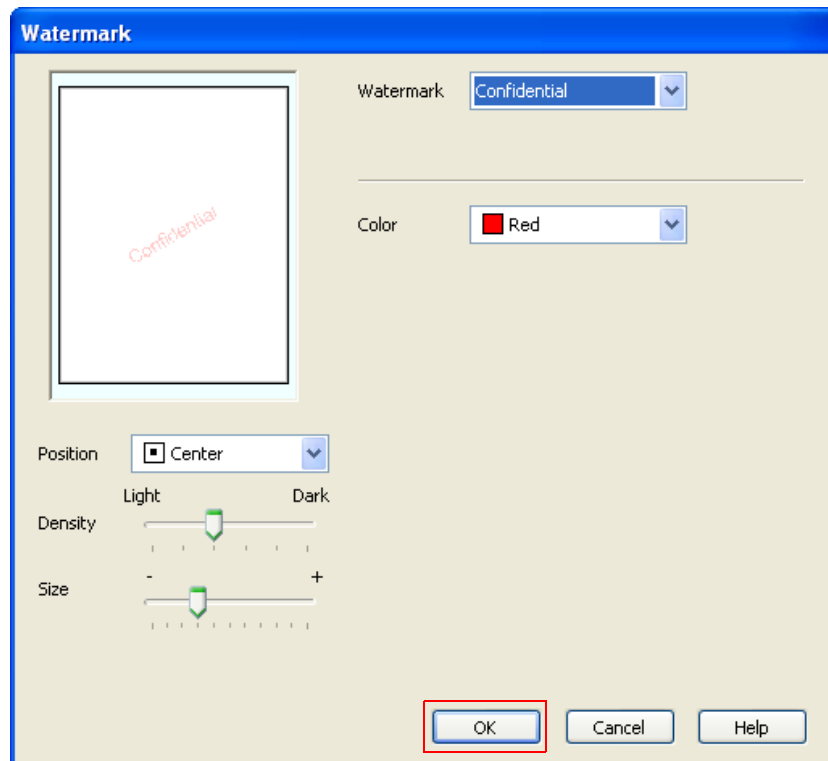
5. Select the appropriate Size setting.

6. Select **Portrait** (tall) or **Landscape** (wide) to change the orientation of your printout.
7. Click the **Page Layout** tab, choose the desired watermark from the Watermark list, then click **Settings**.



If you want to create your own watermark, see the following instructions.
➔ See “Creating Your Own Watermark” on page 97.

- Specify the settings you want for the watermark. You can change the position and size of the watermark by dragging the image within the preview window.



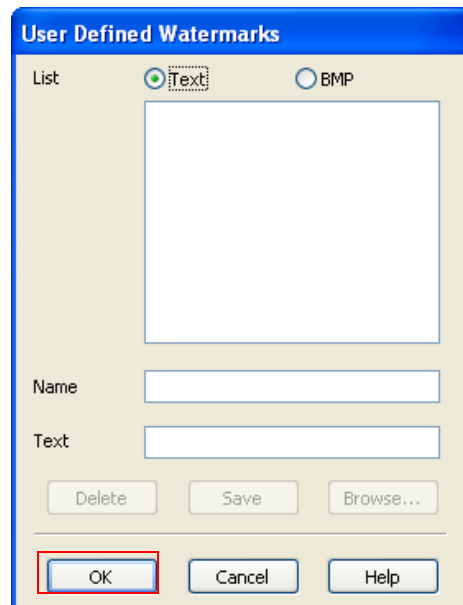
- Click **OK** to return to the Page Layout window.
- Click **OK** to close the printer settings window.

After completing the steps above, print one test copy and examine the results before printing an entire job.

Creating Your Own Watermark

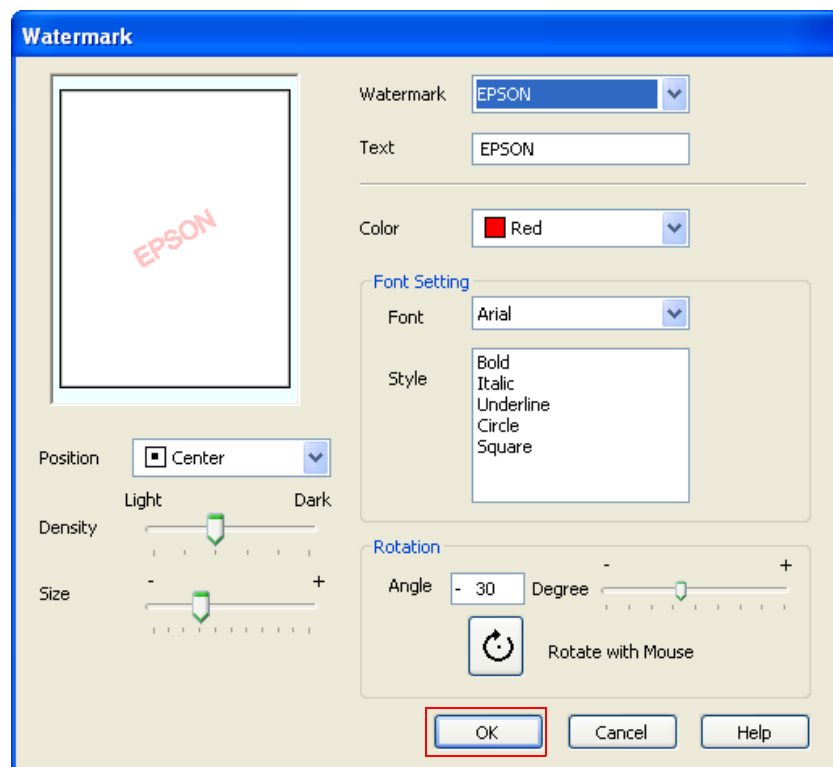
You can add your own text-based or image-based watermarks to the Watermark list.

1. Click **Add/Del** under Watermark on the Page Layout window. The following window appears.



2. Do one of the following:
 - ☐ To use an image file as a watermark, select **BMP**. Click **Browse** to locate the bitmap file you want to use, then click **Open**. Type a name for your watermark in the Name text box, then click **Save**.
 - ☐ To create a text-based watermark, select **Text**. Type your text in the Text box. This text will also be used as the watermark name. If you want to change the watermark name, type a new name in the Name text box, then click **Save**.
3. Click **OK** to return to the Page Layout window.

- Click **Settings**. The following window appears:



- Make sure that the appropriate watermark is selected in the Watermark list, then select Color, Position, Density, Size, Font, Style, and Angle settings. (For details, see the online help.) Your settings are reflected in the preview window.
- When you finish making settings, click **OK**.

Chapter 5

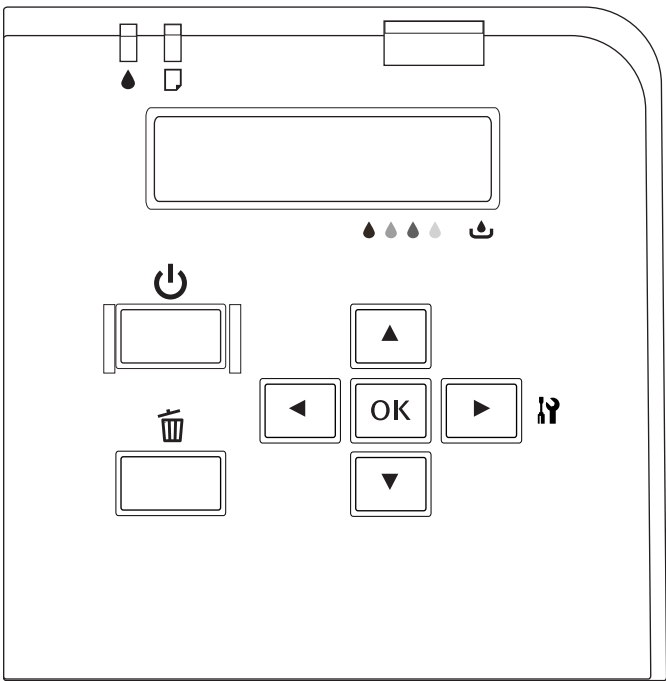
Using the Control Panel

Introduction

You can use the printer’s control panel to access a variety of menus that allow you to check the status of consumable products, print status sheets, and make printer settings. This section describes how to use the control panel.

The Control Panel








The control panel of the printer consists of 7 buttons, 3 lights, and a liquid crystal display (LCD).



Buttons and Lights



The table below describes the functions of the buttons on the control panel.

Button	Description
--------	-------------

 Power button	Turns the printer on or off.
 Cancel button	Cancels the print job if pressed during printing. Returns to the Ready status when pressed in Menu mode.
 Left button	Returns to the previous level when pressed in Menu mode.
 Up button	Changes the parameter in the reverse order when selecting a desired parameter in Menu mode.
 Down button	Changes the parameters in forward order when selecting a desired parameter in Menu mode.
 Right button	Enters Menu mode when pressed in the Ready status. Selects a desired menu when pressed in Menu mode.
 OK button	Sets the selected parameter in the selected item in Menu mode. Executes the item if the selected item is for execution only. Feeds the paper when paper feed failed.

The table below describes the meanings of the lights on the control panel. The lights let you know the status of the printer and the type of an error when it occurs.




Light	Description
-------	-------------


 Ink status light (orange)	<p>On:</p> <ul style="list-style-type: none"> The installed ink cartridge is expended. The ink cartridge is not installed. The installed ink cartridges cannot be used with the printer. The cartridge lock lever is in the unlocked position. The installed maintenance box is at the end of its service life. The maintenance box is not installed. The installed maintenance box cannot be used with the printer. The maintenance box cover is open. <p>Flashing:</p> <ul style="list-style-type: none"> The installed ink cartridge is nearly expended. The maintenance box is nearing the end of its service life.
 Paper status light (orange)	<p>On:</p> <ul style="list-style-type: none"> No paper is loaded in the paper source. The printer loads more than one sheet of paper at a time. <p>Flashing:</p> <ul style="list-style-type: none"> Paper is jammed.
Power light (green)	<p>On:</p> <ul style="list-style-type: none"> The printer is in the Ready status. <p>Flashing:</p> <ul style="list-style-type: none"> The printer is starting. The printer is printing. The printer is cleaning the print head. The printer is charging the ink. The printer is canceling printing. <p>Off:</p> <ul style="list-style-type: none"> The printer is off.

Icons on the LCD





This section describes the meaning of icons displayed on the LCD screen.

The table below describes the meaning of ink cartridge status icon.

Icon	Description
	The icon gives a rough estimate of the useable ink remaining in the ink cartridge.
	The installed ink cartridge is nearly expended.
	The installed ink cartridge is expended.

	<p>The ink cartridge is not installed.</p> <p>The installed ink cartridges cannot be used with the printer.</p>
---	---












The table below describes the meaning of maintenance box status icon.

Icon	Description
	The icon gives a rough estimate of the remaining capacity of the maintenance box. The dark graphic reflects remaining capacity.
	The installed maintenance box is nearing the end of its service life.
	The installed maintenance box is at the end of its service life.
	<p>The maintenance box is not installed.</p> <p>The installed maintenance box cannot be used with the printer.</p>

How to Access the Control Panel Menus


This section describes how to enter Menu mode and make settings with the buttons on the control panel.

Note:

- ☐ Press the  **Cancel** button whenever you want to exit Menu mode and return to the Ready status.
 - ☐ Press the  **Left** button to return to the previous step.
1. Make sure that **READY** appears on the LCD screen, and then press the  **Right** button. The first menu appears on the LCD screen.
 2. Press the  **Down** or  **Up** button to scroll through the menus.
 3. Press the **OK** or  **Right** button to select the desired menu. The first item appears on the LCD screen.
 4. Press the  **Down** or  **Up** button to scroll through the items.
 5. Press the **OK** or  **Right** button to select the desired item. The first parameter appears on the LCD screen.
 6. Press the  **Down** or  **Up** button to scroll through the parameters.

7. Press the **OK** button to store the selected parameter. If the parameter is for execution only, press the **OK** button to execute the function for the item.

After execution, the printer returns to the previous menu.

8. Press the  **Cancel** button. The printer returns to the Ready status.

Control Panel Menu List

This section describes the parameter for each item in the menu.

Printer Setting Menu

This menu allows you to configure the basic printer setting.

Language

You can select the language displayed on the LCD screen from the following list: English, French, Italian, German, Spanish, Portuguese, Dutch, Japanese.

USB, Network

You can select the printer control language for the port.

Test Print Menu

This menu allows you to make settings related to test print.

Nozzle check

You can print a print head nozzle check pattern for each ink cartridge. From the printing results, you can check whether the nozzles are delivering ink properly.

➡ See “Checking the Print Head Nozzles” on page 129.

Status sheet

You can print the current printer status.

➡ See “Printing the Status Sheet” on page 109.

Network sheet

You can print the current settings of the network interface.

Printer Status Menu

This menu allows you to check the current printer status.

Version

You can check the firmware version.

Maintenance box

You can get a rough estimate of the remaining capacity of the maintenance box.

Maintenance Menu

This menu allows you to make settings related to maintenance.

Head alignment

You can print a head alignment test pattern. From the printing results, you can adjust the head alignment.

Cleaning

You can clean the print head. You can also print a nozzle check pattern before cleaning.

Auto Cleaning

This printer automatically checks the print head nozzles without printing a pattern and cleans the nozzles if they are clogged. Some ink is consumed from all cartridges while checking the print head nozzles.

You can turn this function Off or On.

Cleaning sheet

You can clean up the rollers inside the printer.

Contrast adj.

You can adjust the contrast of the LCD screen. Press the **▲ Up** or **▼ Down** button to adjust contrast.

Low Speed Mode

This function may prevent the print head nozzles from becoming clogged, and will print out more quietly.

You can turn this function Off or On.

Network Setting Menu

This menu allows you to make network settings.

Item			Parameter
Network setup	Auto		-
	Panel	IP address	000.000.000.000–255.255.255.255
		Subnet mask	000.000.000.000–255.255.255.255
		Default gateway	000.000.000.000–255.255.255.255
	Init N/W set		-

Network setup

You can select the method to configure the network settings.

When Auto is selected, the printer obtains the IP address, Subnet mask and Default gateway automatically. When Panel is selected, you can specify the IP address, Subnet mask, and Default gateway settings using the control panel. When Init N/W set is selected, you can revert the network settings of the printer to the factory default value.

IP address, Subnet mask, Default gateway

You can set the IP address, Subnet Mask, and Default Gateway to the printer. To change the parameter, press the ◀ **Left** or ▶ **Right** button to move cursor and the ▲ **Up** or ▼ **Down** button to change number.

Bonjour

You can set the Bonjour settings of the printer.

Password Menu

This menu allows you to make settings related to the LCD panel lock.

Password Setting

You can set the password for the LCD panel lock by entering the current password once and the new password twice. To enter the password, see “Entering the Password” on page 109

Note:

- ❑ The password is set to "" (none) as the factory default.

- ❑ *The password is limited to 8 characters.*
- ❑ *Alphanumeric characters are available for the password.*
- ❑ *If you forget the password, contact Epson support.*

➡ See “Epson Technical Support” on page 164.

Lock Setting

You can lock the LCD panel to make it childproof, or to prevent unexpected changes made by using the LCD panel.

When **Ready** appears after you set this function On, you need to enter the password when you press the ► **Right** button to enter the Menu mode .

Status and Error Messages

This section describes the meaning of messages displayed on the LCD screen.

The table below describes the status messages.

Message	Description
Cancel	The print job is canceled.
Charging ink	The printer is charging the ink.
Cleaning	The printer is cleaning the print head.
Please wait	The printer is starting.
	The printer is initializing the settings.
Printing	The printer is processing data.
Ready	The printer is ready to print.
Power save	The printer is in the power save mode.
Power off	The printer is shutting down.

The table below contains error messages, a brief description of each message and suggestions for correcting the problem.

Message	Problem	Solutions
Service call see guide	Service call error occurs.	Turn off the printer and then back on. If the error does not clear, contact Epson. ➡ See “Where To Get Help” on page 164.

Printer near end of service life	Parts inside the printer are at the end of their service life.	Contact Epson to replace the parts. ➡ See "Where To Get Help" on page 164.
Nozzle maint error see guide	Print head nozzles are clogged or misaligned.	Perform a nozzle check and print head cleaning. ➡ See "Checking the Print Head Nozzles" on page 129. ➡ See "Cleaning the Print Head" on page 131. Press the OK button to recover from error status.
Printer error restart printer	Printer error occurs.	Turn off the printer and make sure paper is not jammed. ➡ See "The Paper Jams" on page 148. If the error still does not clear, contact Epson. ➡ See "Where To Get Help" on page 164.
Close maint box cover	The maintenance box cover is open.	Close the maintenance box cover.
Set maint box	The maintenance box is not installed.	Install the maintenance box.
	The maintenance box cannot be used with the printer.	Install a genuine maintenance box.
Replace maint box	The maintenance box is full.	Replace the maintenance box. ➡ See "Replacing the Maintenance Box" on page 127.
Move ink lever down	The cartridge lever is in the unlocked position.	Move the cartridge lever to the locked position.
Set ink cartridge	The ink cartridge is not installed.	Install the ink cartridge.
Replace ink cartridge	The ink cartridge cannot be used with the printer.	Install a genuine ink cartridge.
	The ink cartridge is expended.	Replace the ink cartridge. ➡ See "Replacing an Ink Cartridge" on page 120.
Set paper in cassette	Paper is not loaded in the front paper cassette.	Load the paper in the front paper cassette.
Set paper in auto feeder	Paper is not loaded in the rear sheet feeder.	Load the paper in the rear sheet feeder.

Remove jammed paper	Paper is jammed in front paper cassette or rear sheet feeder.	Remove the jammed paper. ➡ See "The Paper Jams" on page 148.
Double feed jam remove paper	The printer feeds more than one sheet of paper at a time.	Remove the jammed paper, and then press the OK button.
Close printer cover	The printer cover is open during printing.	Close the printer cover.
Set duplex unit	The duplex unit is removed.	Attach the duplex unit.
Duplex unit jam remove paper	Paper is jammed in duplex unit.	Remove the jammed paper. ➡ See "The Paper Jams" on page 148.

Printing the Status Sheet

While in Menu mode, you can print a status sheet to see the current default values. To print a status sheet, follow the steps below.

1. Make sure that letter/A4 size paper is loaded in the front paper cassette.
2. Press the ► **Right** button to enter Menu mode.
3. Press the ▼ **Down** or ▲ **Up** button to display `TEST PRINT`, and then press the **OK** or ► **Right** button.
4. Press the ▼ **Down** or ▲ **Up** button to display `STATUS SHEET`, and then press the **OK** or ► **Right** button.
5. Press the **OK** button to start printing a status sheet.

After printing is finished, the printer returns to the Test print menu.

Entering the Password

When you want to set or change the password from the Password menu, or press the ► **Right** button to enter the Menus after the LCD panel is locked, you need to enter the password.

Follow the instructions below to enter the password.

Note:

*If the current password is the factory default, just press the **OK** button to proceed.*

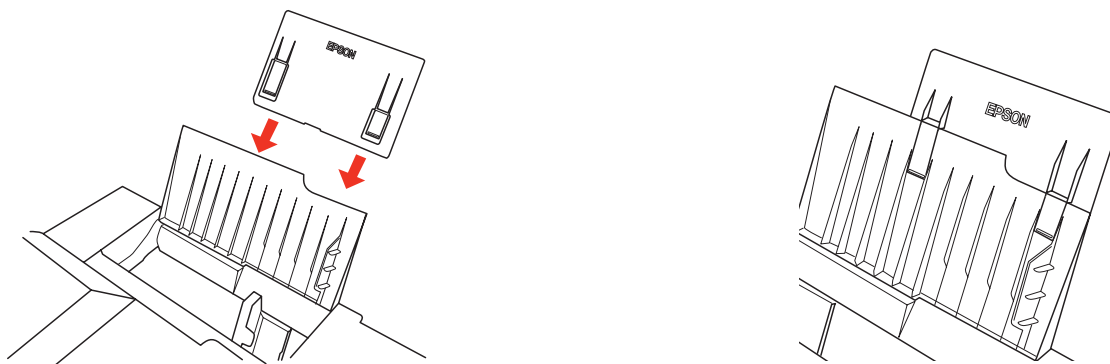
1. Press the ▼ **Down** or ▲ **Up** button to display the character you want to select.

2. Press the ► **Right** button to determine the character.
3. Repeat steps 1 and 2 until you have entered the password.
4. Once all the characters are set, press the **OK** button.

Optional Legal-size Paper Support

Installing the Optional Legal-size Paper Support

Align the legal-size paper support with the right side of the paper support and attach it as shown. You can load up to 60 sheets of plain legal-size paper (up to 20 lb or 75 g/m²).



Do not leave legal-size paper in the rear sheet feeder when you are not printing, or the sheets may curl.

Optional Duplex Unit (B-310N only)

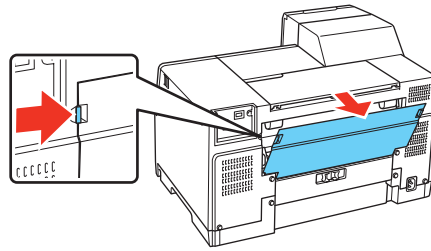
Installing the Optional Duplex Unit

Follow the steps below to install the duplex unit.

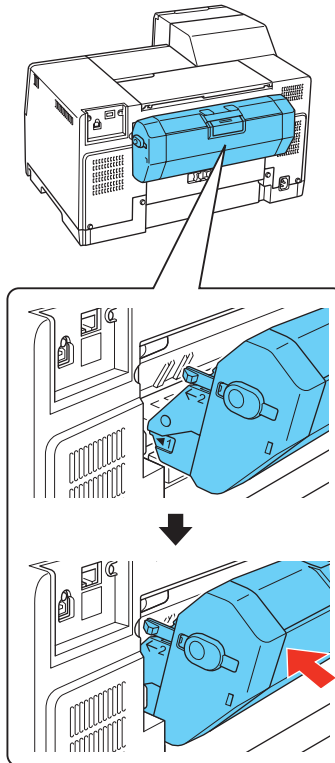
1. Turn off the printer.
2. Press the hooks on both sides of the upper rear printer cover, and then remove the upper rear printer cover.

Note:

Keep the upper rear printer cover, since it must be in place should you remove the duplexing unit later.



3. Insert the bottom side of the duplex unit first, and then attach the duplex unit.

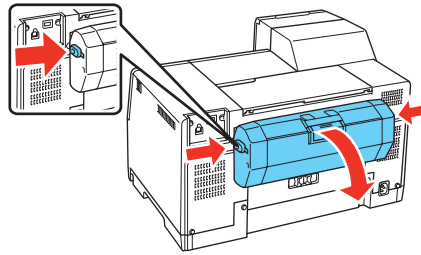


Uninstalling the Optional Duplex Unit

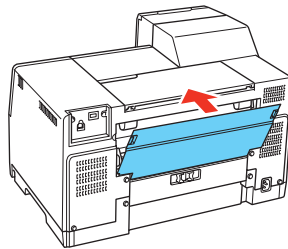
Follow the steps below to uninstall the duplex unit.

1. Turn off the printer.

2. Remove the duplex unit by pulling it while holding down the buttons on both sides of the duplex unit.



3. Attach the upper rear printer cover.



Optional Legal-size Paper Cassette

Installing the Optional Legal-size Paper Cassette

Gently insert the legal-size paper cassette into the front of the printer, underneath the paper output tray. The legal-size paper cassette extends past the edge of the paper output tray when installed correctly.

Ink Cartridges

Checking the Ink Cartridge Status

Using the Control Panel

To check the ink cartridge status, see “Icons on the LCD” on page 102.

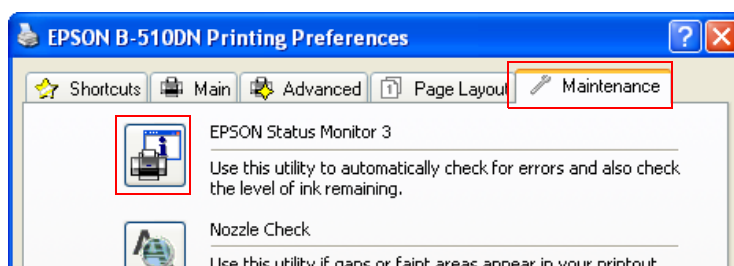
Using the Printer Utility for Windows

Note:

Epson cannot guarantee the quality or reliability of non-genuine ink. If non-genuine ink cartridges are installed, the ink cartridge status will not be displayed.

To check the ink cartridge status, do one of the following:

- ☐ Double-click the printer shortcut icon on your Windows taskbar. To add a shortcut icon to the taskbar, refer to the following section.
 - ➔ See “From the Shortcut Icon on the Taskbar” on page 15.
- ☐ Open the printer driver, click the **Maintenance** tab, then click the **EPSON Status Monitor 3** button.



A graphic displays the ink cartridge status.



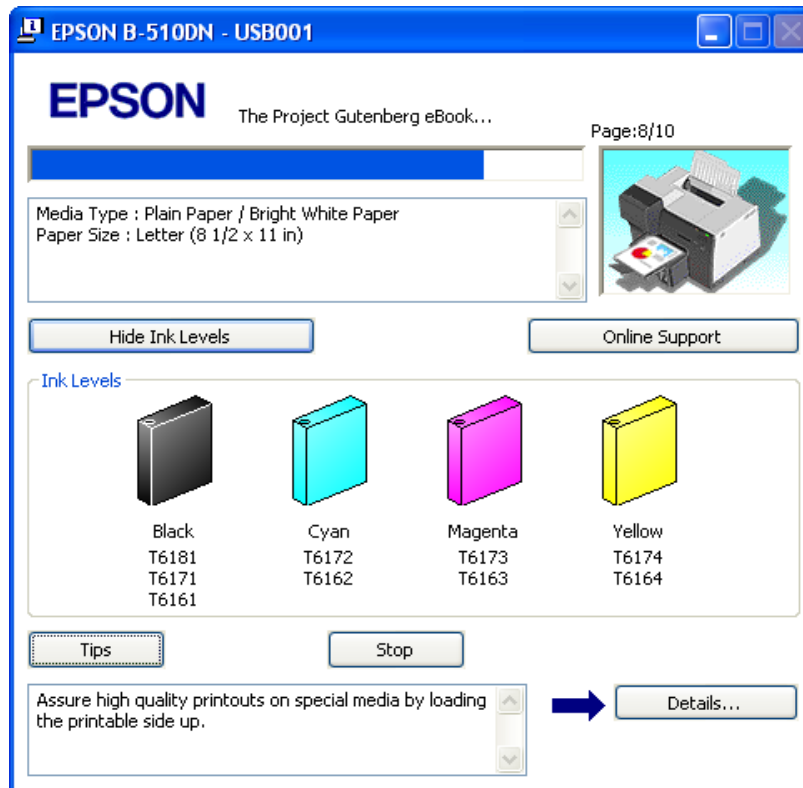
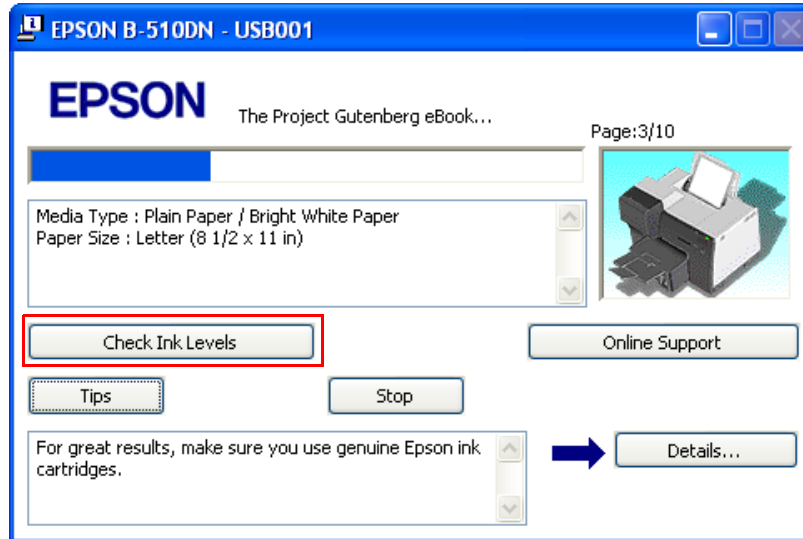
Note:

If any of the ink cartridges installed in the printer is broken, incompatible with the printer model, or improperly installed, EPSON Status Monitor 3 will not display an accurate calculation of the ink cartridge status. Be sure to replace or reinstall any ink cartridges indicated by EPSON Status Monitor 3.

- ☐ The progress meter appears automatically when you start a print job. Click the **Check Ink Levels** button, and then you can check the ink cartridge status from this window.

Note:

To display the progress meter automatically, click the **Maintenance** tab in the printer driver window, click **Speed & Progress**, and then select the **Show Progress Meter** check box.



Using the Printer Utility for Mac OS X

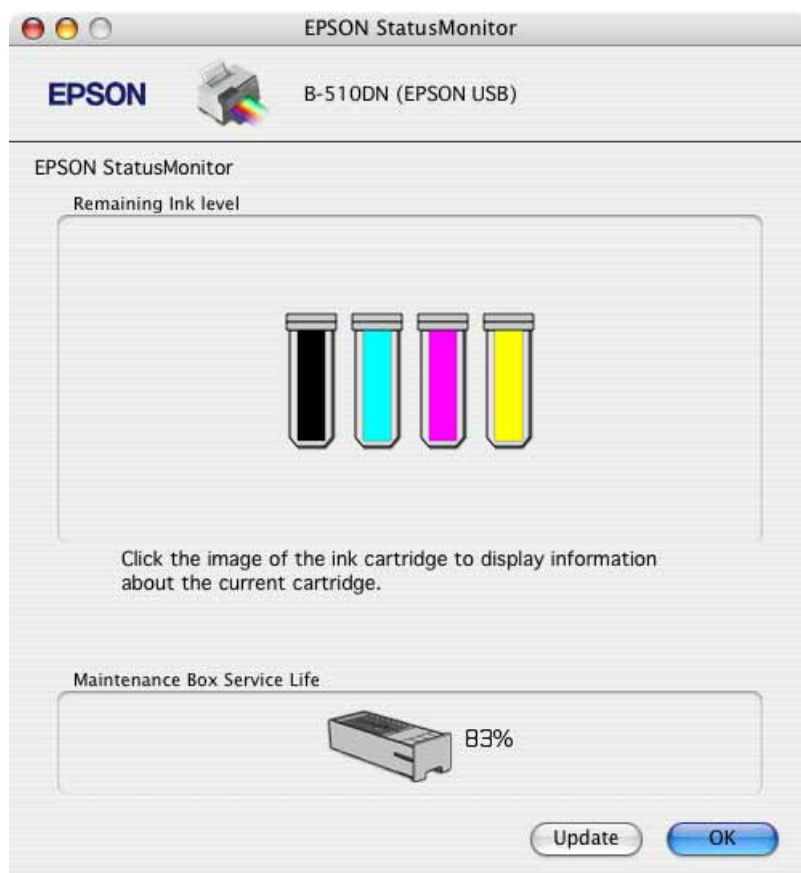
Note for Mac OS X 10.5 and 10.6:

When an ink cartridge is running low, the Low Ink Reminder window automatically appears. You can also check the ink cartridge status from this window. If you do not want to display this window, select the **Preferences** menu from the Application menu when the Low Ink Reminder window is displayed, and then clear the **Enable Low Ink Reminder** check box.

You can check the ink cartridge status using EPSON StatusMonitor. Follow the steps below.

1. Access the EPSON Printer Utility3 dialog.

➔ See “Accessing the Printer Driver for Mac OS X” on page 15.
2. Click the **EPSON StatusMonitor** button. The EPSON StatusMonitor appears.



Note:

- ☐ The graphic displays the ink cartridge status when EPSON StatusMonitor was first opened. To update the ink cartridge status, click **Update**.
- ☐ Epson cannot guarantee the quality or reliability of non-genuine ink. If non-genuine ink cartridges are installed, the ink cartridge status may not be displayed.

- ❑ *If any of the ink cartridges installed in the printer is broken, incompatible with the printer model, or improperly installed, EPSON StatusMonitor will not display an accurate status of the ink cartridge. Be sure to replace or reinstall any ink cartridge indicated by the EPSON StatusMonitor.*

Note for Mac OS X 10.5 and 10.6:

The printer monitor window appears automatically when you start a print job. You can check the ink cartridge status from this window.

Purchasing Epson Cartridges

You can purchase genuine Epson ink and paper at Epson Supplies Central at www.epson.com/ink3 (U.S. sales) or www.epson.ca (Canadian sales). You can also purchase supplies from an Epson authorized reseller. To find the nearest one, call 800-GO-EPSON (800-463-7766).

Purchase genuine Epson cartridges and use them within six months of installing them and before the expiration date on the cartridge box. When you purchase new ink, use the following Epson ink cartridge numbers:

Ink color	Standard Capacity	High Capacity (B-510DN only)	Extra High Capacity (B-510DN only)
Black	T6161	T6171	T6181
Cyan	T6162	T6172	—
Magenta	T6163	T6173	—
Yellow	T6164	T6174	—

Note:

- ❑ *We recommend that you use genuine Epson cartridges and do not refill them. The use of other products may affect your print quality and could result in printer damage.*
- ❑ *The printer ships with full cartridges and part of the ink from this first set of cartridges is used for charging the printer.*
- ❑ *Yields vary considerably based on images printed, print settings, paper type, frequency of use and temperature. For print quality, a small amount of ink remains in the cartridge after the "replace cartridge" indicator comes on.*
- ❑ *Store ink cartridges in a cool, dark place. If cartridges have been exposed to cold temperatures, allow them to warm up to room temperature for at least 3 hours before using them.*

Handling Precautions

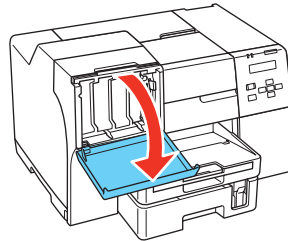
Read all of the instructions in this section before replacing the ink cartridges.

- ❑ This printer uses ink cartridges equipped with an IC chip that monitors the amount of ink used by each cartridge. Cartridges are usable even if they are removed and reinserted.
- ❑ If you need to remove an ink cartridge temporarily, be sure to protect the ink supply area from dirt and dust. Store the ink cartridge in the same environment as the printer. When storing the cartridge, be sure that its label identifying the color of the ink cartridge is facing upward. Do not store ink cartridges upside down.
- ❑ The valve in the ink supply port is designed to contain any excess ink that may be released. However, careful handling is recommended. Do not touch the supply port of the ink cartridge or its surrounding area.
- ❑ Ink is consumed during the following operations: print head cleaning, initial ink charging, and nozzle maintaining.
- ❑ Never turn off the printer during initial ink charging. The ink may fail to be filled up and the printer may become unavailable to print.
- ❑ If you change the ink cartridge to Extra High Capacity Ink Cartridge, retain the default ink cartridge or Standard Capacity Ink Cartridge, or High Capacity Ink Cartridge. One of these cartridges is needed when you transport the printer.
- ❑ The use of other products not manufactured by Epson may affect your print quality and could result in printer damage that is not covered by Epson's warranties.
- ❑ Keep ink cartridges out of the reach of children. Do not allow children to drink the ink or handle the cartridges.
- ❑ Be careful when you handle used ink cartridges, as there may be some ink around the ink supply port or surrounding area. If ink gets on your skin, wash the area thoroughly with soap and water. If ink gets into your eyes, flush them immediately with water. If discomfort or vision problems continue after a thorough flushing, see a doctor immediately.
- ❑ We recommend that you use genuine Epson cartridges and do not refill them. The use of other products may affect your print quality and could result in printer damage. Epson cannot guarantee the quality or reliability of non-genuine ink. The ink cartridge status is not displayed when non-genuine ink is used.
- ❑ Leave the old cartridge installed in the printer until you have obtained a replacement; otherwise, ink remaining in the print head nozzles may dry out.
- ❑ You cannot continue printing with one ink cartridge expended, even if the other cartridges still contain ink. Before printing, replace the expended cartridge.
- ❑ Never turn off the printer while replacing the ink cartridge. Doing so may damage the IC chip on the ink cartridge and the printer may not print properly.

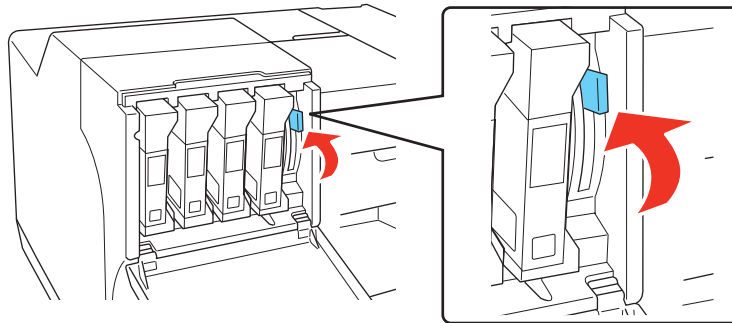
Replacing an Ink Cartridge

To replace the ink cartridge, follow the steps below.

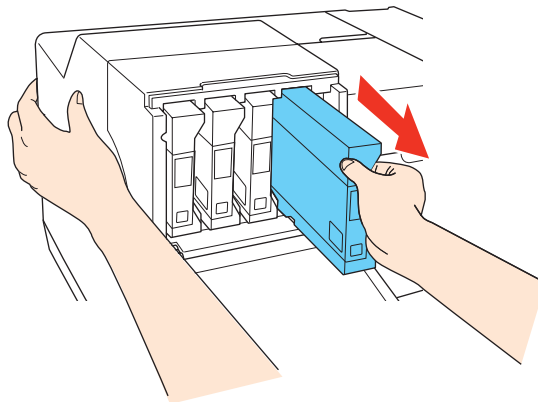
1. Open the cartridge cover.



2. Move the cartridge lever to the unlocked position.



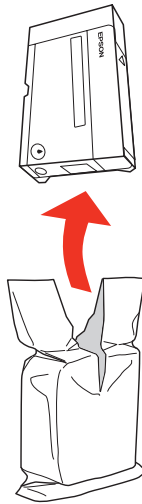
3. Remove the expended ink cartridge.



Note:

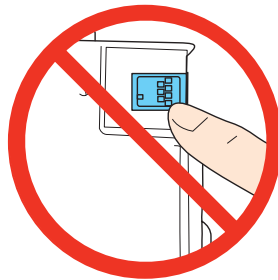
Hold the printer with your hand when you remove the ink cartridge.

4. Remove the new ink cartridge from the package.



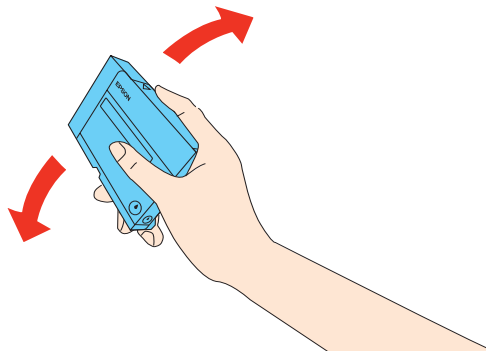
Caution:

- ❑ Do not touch the green IC chip on the side of the cartridge. This can damage the ink cartridge.

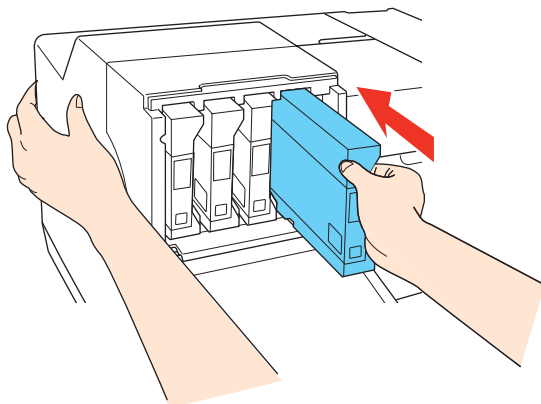


- ❑ Always install an ink cartridge immediately after removing the old cartridge. If the cartridge is not installed promptly, the print head may dry out and be unable to print.

5. For best results, shake the ink cartridge for about five seconds.



6. Hold the ink cartridge with the arrow mark facing up and pointing to the rear of the printer, and then insert it into the slot.



Note:

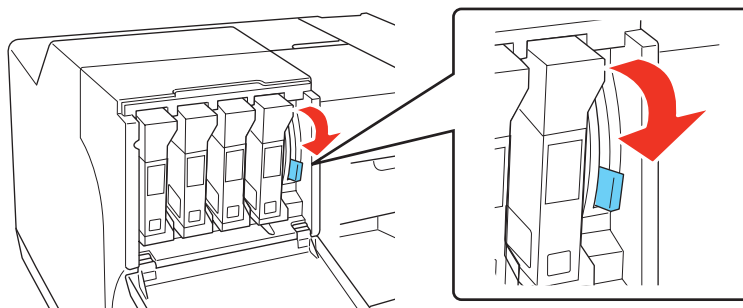
Hold the printer with your hand when you install the ink cartridge.



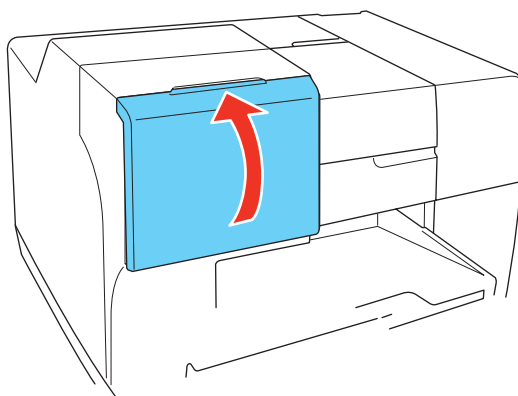
Caution:

Do not remove and reinsert cartridges more often than necessary. Doing so can compromise the needle valve seal and allow air to enter the ink tubes, causing nozzle loss.

7. Move the cartridge lever to the locked position.



8. Close the cartridge cover.



Note:

When you install the Extra High Capacity Ink Cartridge, use the printer with the cartridge cover opened.

Maintenance Box

Checking the Maintenance Box Status

Using the Control Panel

To check the maintenance box status using the control panel, follow the steps below.

1. Make sure that **READY** appears on the LCD screen, and then press the **► Right** button. **MENU** appears on the LCD screen.
2. Press the **▼ Down** or **▲ Up** button to select **PRINTER STATUS**, and then press the **OK** or **► Right** button.
3. Press the **▼ Down** or **▲ Up** button to select **MAINTENANCE BOX**, and then press the **OK** or **► Right** button.
4. A rough estimate of the maintenance box capacity appears on the LCD screen.

Note:

You can check the maintenance box status by the icon displayed on the lower right of the LCD screen as well.

➡ See “Icons on the LCD” on page 102.

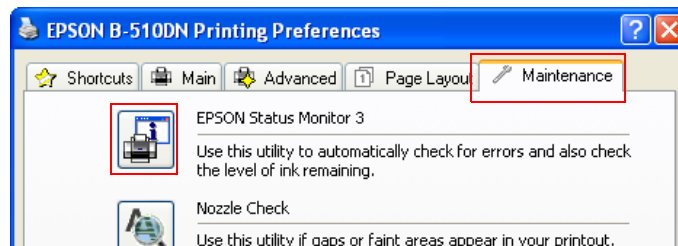
For Windows

Note:

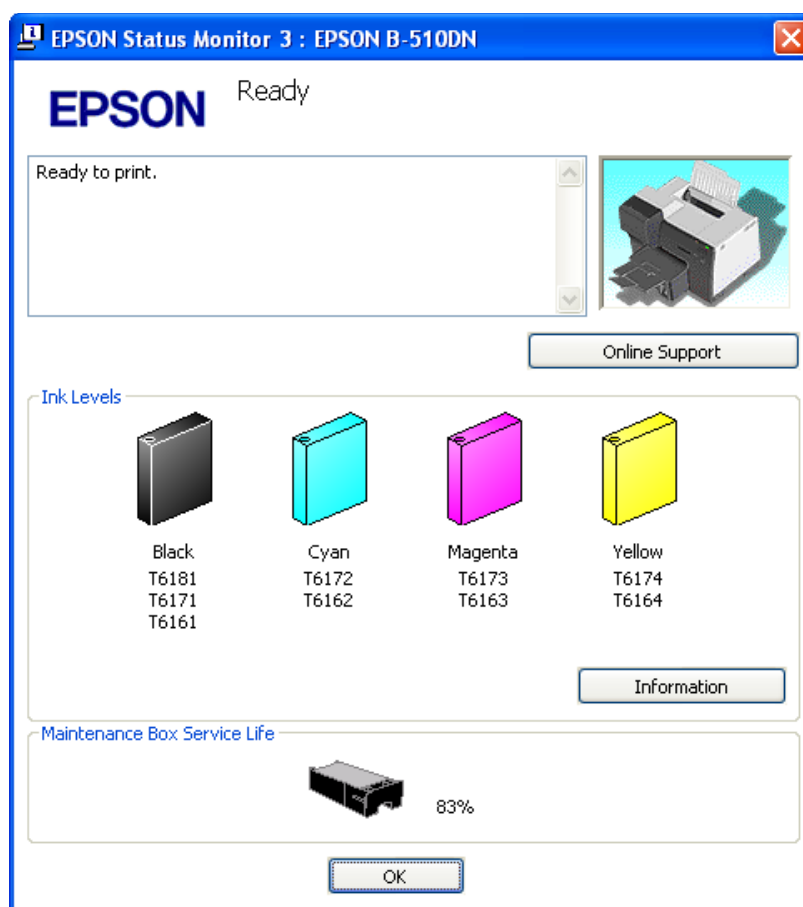
Epson cannot guarantee the quality or reliability of non-genuine maintenance boxes. If a non-genuine maintenance box is installed, the maintenance box status will not be displayed.

To check the maintenance box status, do one of the following:

- ☐ Double-click the printer shortcut icon on your Windows taskbar. To add a shortcut icon to the taskbar, refer to the following section.
 - ➔ See “From the Shortcut Icon on the Taskbar” on page 15.
- ☐ Open the printer driver, click the **Maintenance** tab, then click the **Status Monitor 3** button.



A graphic displays the maintenance box status.



Note:

- ❑ The printer ships with a new maintenance box, even though the service life indicator does not show 100% when the printer is new. EPSON Status Monitor 3 and the printer's control panel will indicate when the maintenance box needs to be replaced.
- ❑ If the maintenance box installed in the printer is broken, incompatible with the printer model, or improperly installed, EPSON Status Monitor 3 will not display an accurate calculation of the maintenance box status. Be sure to replace or reinstall any ink cartridge indicated by EPSON Status Monitor 3.

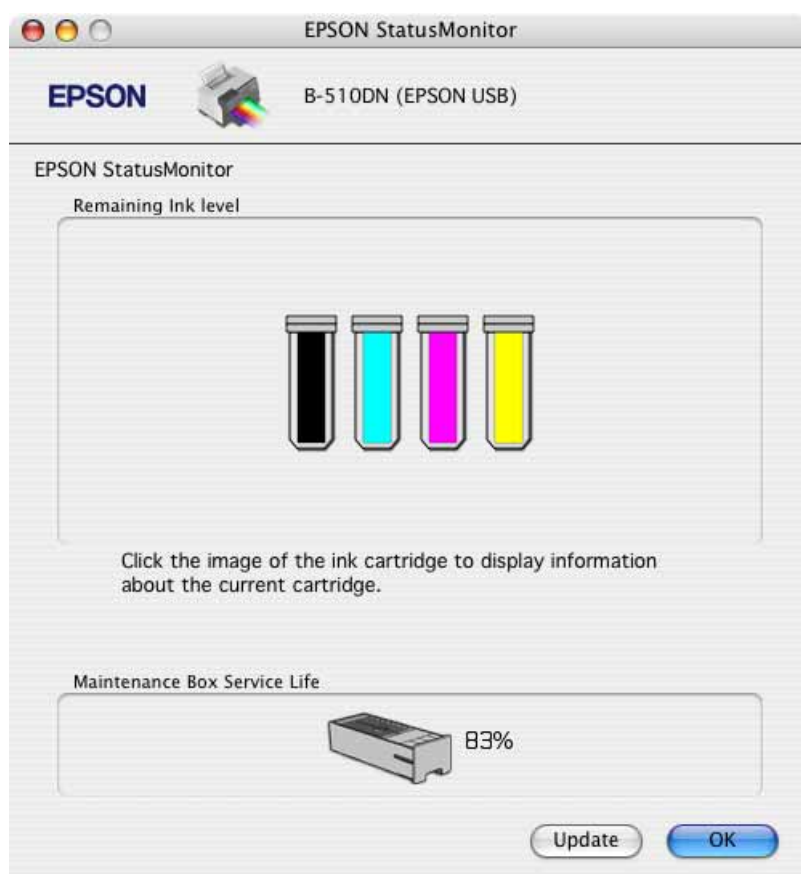
For Mac OS X

You can check the maintenance box status using EPSON StatusMonitor. Follow the steps below.

1. Access the EPSON Printer Utility3 dialog.

➡ See "Accessing the Printer Driver for Mac OS X" on page 15.

2. Click the **EPSON StatusMonitor** button. The EPSON StatusMonitor appears.



Note:

- ❑ The graphic displays the maintenance box status when EPSON StatusMonitor was first opened. To update the maintenance box status, click **Update**.
- ❑ Epson cannot guarantee the quality or reliability of non-genuine maintenance boxes. If non-genuine maintenance boxes are installed, the maintenance box status may not be displayed.
- ❑ If the maintenance box installed in the printer is broken, incompatible with the printer model, or improperly installed, EPSON StatusMonitor will not display an accurate status of the maintenance box. Be sure to replace or reinstall the maintenance box.

Purchasing a Replacement Maintenance Box

You can purchase a genuine Epson maintenance box at Epson Supplies Central at www.epson.com/ink3 (U.S. sales) or www.epson.ca (Canadian sales). You can also purchase supplies from an Epson authorized reseller. To find the nearest one, call 800-GO-EPSON (800-463-7766).

Handling Precautions

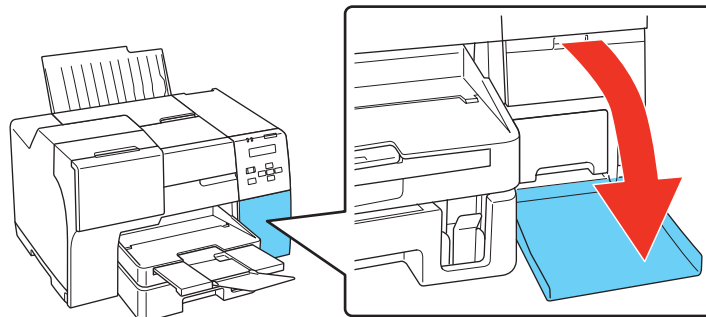
Read all of the instructions in this section before replacing the maintenance box.

- ❑ Epson recommends the use of genuine Epson maintenance boxes. The use of a non-genuine maintenance box may cause damage that is not covered by Epson's warranties, and under certain circumstances, may cause erratic printer behavior. Epson cannot guarantee the quality or reliability of non-genuine maintenance boxes. The maintenance box status is not displayed when a non-genuine maintenance box is used.
- ❑ Do not dismantle the maintenance box.
- ❑ Do not touch the green IC chip on the side of the maintenance box.
- ❑ Keep out of reach of children, and do not drink the ink.
- ❑ Do not peel off the film covering the maintenance box.
- ❑ Do not tilt the used maintenance box until it is placed in the plastic bag provided.
- ❑ Do not reuse a maintenance box which has been removed and left detached for a long period.

Replacing the Maintenance Box

To replace the maintenance box, follow the steps below.

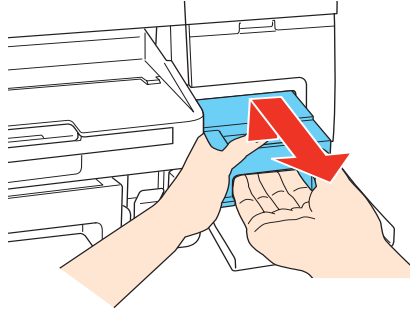
1. Confirm that the printer is ready and not printing.
2. Open the maintenance box cover.



3. Remove the new maintenance box from the package.
4. Lift up and pull the installed maintenance box outward.

Note:

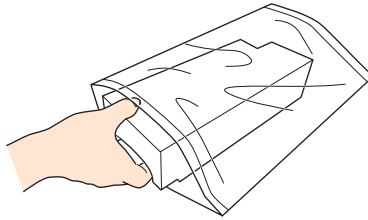
- ❑ Do not tilt the maintenance box when you remove it.
- ❑ Hold the maintenance box with both hands when you handle it.



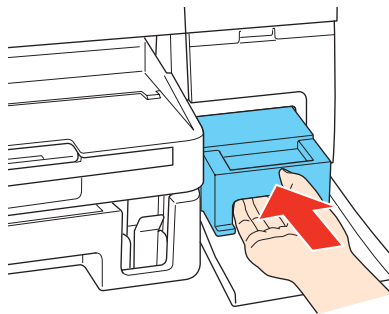
5. Put the used maintenance box into the plastic bag, and then seal the bag.

Note:

The plastic bag is provided with the new maintenance box.



6. Insert the new maintenance box into place as far as it will go.



7. Close the maintenance box cover.

Auto Head Maintenance

This printer automatically checks the print head nozzles without printing a pattern and cleans the nozzles if they are clogged (Auto Head Maintenance). You can choose to turn this function on or off from the printer's control panel.

Automatic nozzle checking is performed at predefined times.

Note:

- ❑ *Depending on the circumstances, Auto Head Maintenance may not completely clean the print head nozzles.*
- ❑ *Some ink is consumed from all cartridges while checking the print head nozzles and cleaning the print head.*

Checking the Print Head Nozzles

If you find that your printouts are unexpectedly faint or have gaps in them, you may be able to identify the problem by checking the print head nozzles.

You can check the print head nozzles from your computer by using the Nozzle Check utility or from the printer by using the control panel or buttons.

Note:

The printer checks the print head on a regular basis to keep it clean and make sure you receive premium print quality. If print head nozzles are clogged, the printer automatically cleans the print head. Normally, you do not need to perform nozzle checks and print head cleaning; however, the self-cleaning function cannot completely prevent nozzle clogs.

Using the Nozzle Check Utility for Windows

Follow the steps below to use the Nozzle Check utility.

1. Make sure that no lights are indicating errors.
2. Make sure that letter/A4 size paper is loaded in the front paper cassette.
3. Right-click the printer icon on the taskbar, then select **Nozzle Check**.

If the printer icon does not appear, refer to the following section to add the icon.

➡ See “From the Shortcut Icon on the Taskbar” on page 15.

4. Follow the on-screen instructions.

Using the Nozzle Check Utility for Mac OS X

Follow the steps below to use the Nozzle Check utility.

1. Make sure that no lights are indicating errors.
2. Make sure that letter/A4 size paper is loaded in the sheet feeder.
3. Access the EPSON Printer Utility3 dialog.
➡ See “Accessing the Printer Driver for Mac OS X” on page 15.
4. Click the **Nozzle Check** button in the Utility dialog.
5. Follow the on-screen instructions.

Using the Control Panel

Follow the steps below to check the print head nozzles using the control panel.

1. Make sure that letter/A4 size paper is loaded in the front paper cassette.
2. Make sure that **READY** appears on the LCD screen, and then press the ► **Right** button. Menu appears on the LCD screen.
3. Press the ▼ **Down** or ▲ **Up** button to select **TEST PRINT**, and then press the **OK** or ► **Right** button.
4. Press the ▼ **Down** or ▲ **Up** button to select **NOZZLE CHECK**, and then press the **OK** or ► **Right** button.
5. Press the **OK** button to print the nozzle check pattern.

After printing, the cleaning menu appears. If you find a print quality problem, press the **OK** button to clean the print head.

Cleaning the Print Head

If you find that your printouts are unexpectedly faint or have gaps in them, you may be able to solve these problems by cleaning the print head, which ensures that the nozzles are delivering ink properly.

You can clean the print head from your computer using the Head Cleaning utility in the printer driver or from the printer by using the control panel or buttons.

Note:

- ☐ *Clean the print head only if print quality declines; for example, if the printout is blurry or the color is incorrect or missing.*
- ☐ *Use the Nozzle Check utility first to confirm that the print head needs to be cleaned. This saves ink.*
- ☐ *When ink is low you may not be able to clean the print head. When ink is expended you cannot clean the print head. Replace the appropriate ink cartridge first.*
 - ➔ *See “Replacing an Ink Cartridge” on page 120.*

Using the Head Cleaning Utility for Windows


Follow the steps below to clean the print head using the Head Cleaning utility.

1. Make sure the printer is turned on.
2. Make sure that no lights are indicating errors.
3. Make sure that letter/A4 size paper is loaded in the front paper cassette.
4. Right-click the printer icon on the taskbar, then select **Head Cleaning**.

If the printer icon does not appear, refer to the following section to add the icon.

➔ See “From the Shortcut Icon on the Taskbar” on page 15.

5. Follow the on-screen instructions.

The  Power light flashes while the printer performs the cleaning cycle.



Caution:

*Never turn off the printer while the  **Power** light is flashing. Doing so may damage the printer.*

Note:

- ☐ *If print quality has not improved after repeating this procedure, turn off the printer and wait for at least six hours. Then run the nozzle check again and repeat the head cleaning if necessary.*

- ❑ *If print quality remains a problem, contact Epson.*
 - ➡ *See “Where To Get Help” on page 164.*
- ❑ *To maintain print quality, we recommend printing a few pages on a regular basis.*

Using the Head Cleaning Utility for Mac OS X

Follow the steps below to clean the print head using the Head Cleaning utility.

1. Make sure the printer is turned on.
2. Make sure that no lights are indicating errors.
3. Make sure that letter/A4 size paper is loaded in the sheet feeder.
4. Access the EPSON Printer Utility3.
 - ➡ See “Accessing the Printer Driver for Mac OS X” on page 15.
5. Click the **Head Cleaning** button in the Utility dialog.
6. Follow the on-screen instructions.

The ⏻ Power light flashes while the printer performs the cleaning cycle.



Caution:

Never turn off the printer while the ⏻ Power light is flashing. Doing so may damage the printer.

Note:

- ❑ *If print quality has not improved after repeating this procedure about four times, turn the printer off and wait for at least six hours. Then run the nozzle check again and repeat the head cleaning if necessary. If print quality has still not improved, contact your dealer.*
- ❑ *To maintain print quality, we recommend printing a few pages on a regular basis.*

Using the Control Panel

Follow the steps below to clean the print head using the control panel.

1. Make sure that letter/A4 size paper is loaded in the front paper cassette.
2. Make sure that **READY** appears on the LCD screen, and then press the ► **Right** button. Menu appears on the LCD screen.

3. Press the ▼ **Down** or ▲ **Up** button to select **MAINTENANCE**, and then press the **OK** or ► **Right** button.
4. Press the ▼ **Down** or ▲ **Up** button to select **CLEANING**, and then press the **OK** or ► **Right** button.
5. Press the **OK** button to start cleaning. The ⏻ **Power** light begins flashing.



Caution:

*Never turn off the printer while the ⏻ **Power** light is flashing. Doing so may damage the printer.*

6. When the ⏻ **Power** light stops flashing, the printer returns to the nozzle check menu. Press the **OK** button to print a nozzle check pattern to confirm that the head is clean.
➔ See “Checking the Print Head Nozzles” on page 129.

Note:

- ❑ *If print quality has not improved after repeating this procedure, turn off the printer and wait for at least six hours. Then run the nozzle check again and repeat the head cleaning if necessary.*
- ❑ *If print quality remains a problem, contact Epson.*
➔ See “Where To Get Help” on page 164.
- ❑ *To maintain print quality, we recommend printing a few pages on a regular basis.*

Aligning the Print Head

If you notice a misalignment of vertical lines or horizontal banding, you may be able to solve this problem by using the Print Head Alignment utility in your printer driver or from the printer by using the buttons.

Refer to the appropriate section below.

Note:

*Do not press the ⏏ **Cancel** button to cancel printing while printing a test pattern with the Print Head Alignment utility.*

Using the Print Head Alignment Utility for Windows

Follow the steps below to align the print head using the Print Head Alignment utility.

1. Make sure that no lights are indicating errors.
2. Make sure letter/A4 size plain paper is loaded in the front paper cassette.

3. Right-click the printer icon on the taskbar, then select **Print Head Alignment**.

If the printer icon does not appear, refer to the following section to add the icon.

➡ See “From the Shortcut Icon on the Taskbar” on page 15.

4. Follow the on-screen instructions to align the print head.

Using the Print Head Alignment Utility for Mac OS X

Follow the steps below to align the print head using the Print Head Alignment utility.

1. Make sure that no lights are indicating errors.
2. Make sure letter/A4 size paper is loaded in the sheet feeder.
3. Access the EPSON Printer Utility3 dialog.

➡ See “Accessing the Printer Driver for Mac OS X” on page 15.

4. Click the **Print Head Alignment** button in the Utility dialog.
5. Follow the on-screen instructions to align the print head.

Using the Control Panel

Follow the steps below to align the print head using the control panel.

1. Make sure that letter/A4 size plain paper is loaded in the front paper cassette.
2. Make sure that **READY** appears on the LCD screen, and then press the ► **Right** button. Menu appears on the LCD screen.
3. Press the ▼ **Down** or ▲ **Up** button to select **MAINTENANCE**, and then press the **OK** or ► **Right** button.
4. Press the ▼ **Down** or ▲ **Up** button to select **HEAD ALIGNMENT**, and then press the **OK** or ► **Right** button.
5. Press the **OK** button to print the alignment pattern.
6. Look at the alignment patterns and find the square without any visible bands in sets #1 through #4.

7. Press the ▼ **Down** or ▲ **Up** button to select the number that corresponds to the square for sets #1 through #4.
8. Press the **OK** button to register your selection.

Cleaning Your Printer

To keep your printer operating at its best, clean it thoroughly several times a year.



Warning:

Be careful not to touch the parts inside the printer.



Caution:

- ☐ Never use alcohol or thinner to clean the printer. These chemicals can damage the printer.
- ☐ Do not apply grease to the metal parts under the print head.
- ☐ Be careful to keep water away from the electronic components.
- ☐ Do not spray the inside of the printer with lubricants.
- ☐ Unsuitable oils can damage the mechanism. Contact Epson or a qualified service person if lubrication is needed.

Note:

After using the printer, close the paper support and the output tray to protect the printer from dust.

Cleaning the Inside of Your Printer

Ink and paper build-up from the rollers may affect the print quality or may prevent the paper from feeding smoothly. You can clean the inside of your printer using the control panel.



Caution:

Do not wipe the inside of the printer, or small pieces of lint may build up inside the printer.

Using the Control Panel

Follow the steps below to clean the inside of the printer using the control panel.

1. Make sure that letter/A4 size paper is loaded in the front paper cassette.

2. Make sure that **READY** appears on the LCD screen, and then press the ► **Right** button. **MENU** appears on the LCD screen.
3. Press the ▼ **Down** or ▲ **Up** button to select **MAINTENANCE**, and then press the **OK** or ► **Right** button.
4. Press the ▼ **Down** or ▲ **Up** button to select **CLEANING SHEET**, and then press the **OK** or ► **Right** button.
5. Press the **OK** button. The printer feeds and ejects paper.

Repeat these steps until no ink gets on the paper.

Transporting Your Printer

If you need to transport your printer some distance, carefully prepare and repack it as described below. Use the original box and packing materials, or a similar box that holds the printer snugly.



Caution:

When transporting the printer, do not tilt it, stand it up vertically, or turn it upside down. Otherwise, ink may leak inside the printer.

1. Plug in the printer and turn it on. Wait until the print head returns to the home position.
2. Press the P **Power** button to turn off the printer, then unplug its power cord.



Caution:

Do not unplug the power cord while the print head is moving or the print head will not return to the home position.

3. Disconnect the interface cable.
4. Remove all paper from the printer.
5. Confirm that the cartridge lever is in the locked position and the cartridge cover is closed.



Caution:

Leave the ink cartridges and maintenance box installed to prevent the ink from leaking.

Note:

If you're using the Extra High Capacity Ink Cartridge, install a standard- or high-capacity cartridge instead when you transport the printer.

6. Close the output tray and paper support.

7. Attach the protective materials to both sides of the printer.
8. Repack the printer and power cord in the original box.

Note:

- ☐ *Keep the printer level during transport.*
- ☐ *Be sure to remove the protective materials from the printer before using it again.*
- ☐ *Do not hold the duplex unit when you lift the printer, to prevent the duplex unit from becoming detached. Also, make sure that the duplex unit is attached correctly after setting up the printer.*

Storing Your Printer

If you need to store your printer, follow the instructions below.



Caution:

When storing the printer, do not tilt it, stand it up vertically, or turn it upside down. Otherwise, ink may leak inside the printer.

1. Plug in the printer and turn it on. Wait until the print head returns to the home position.
2. Press the P Power button to turn off the printer, then unplug its power cord.



Caution:

Do not unplug the printer or turn off the power to the outlet until all the lights are off. Otherwise, the print head will not be capped and will dry out during long-term storage.

3. Disconnect the interface cable.
4. Remove all paper from the printer.
5. Confirm that the cartridge lever is in the locked position and the cartridge cover is closed.



Caution:

Leave the ink cartridges and maintenance box installed to prevent the ink from leaking.

6. Close the output tray and paper support.

Note:

You may need to clean the print head the first time you use the printer after storing it for a long period of time.

Using the Printer on a Network

Setting Up the Printer on a Network

This printer can connect anywhere on your network using 10Base-T or 100Base-TX because it has a built-in Ethernet interface that supports the TCP/IP protocol.

You can make network interface settings such as IP address by using the printer's control panel, or the applications for your computer.

Using the printer's control panel

- ➔ See "Network Setting Menu" on page 106.
- ➔ See also "How to Access the Control Panel Menus" on page 103.

Setting Up Your Computers to Use the Printer

Make sure you have connected the printer to your network as described on the Start Here sheet. Then follow the steps below for every computer on the network that will print with the B-310N or B510DN.

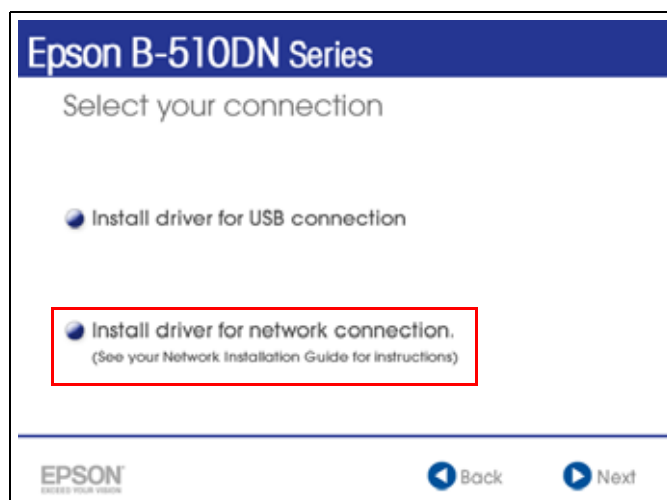
1. Insert the Software CD-ROM in the CD-ROM drive.

With Windows 7 and Windows Vista, if you see the AutoPlay window, click **Run Setup.exe**. When you see the User Account Control screen, click **Continue** or **Yes**.

2. Click **Install**.



3. Click **Install driver for network connection.**

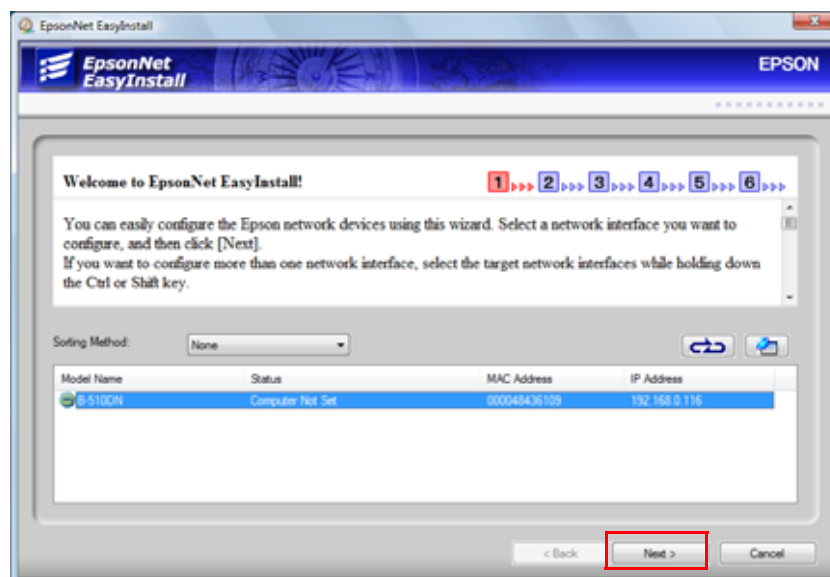


4. Follow the on-screen instructions.

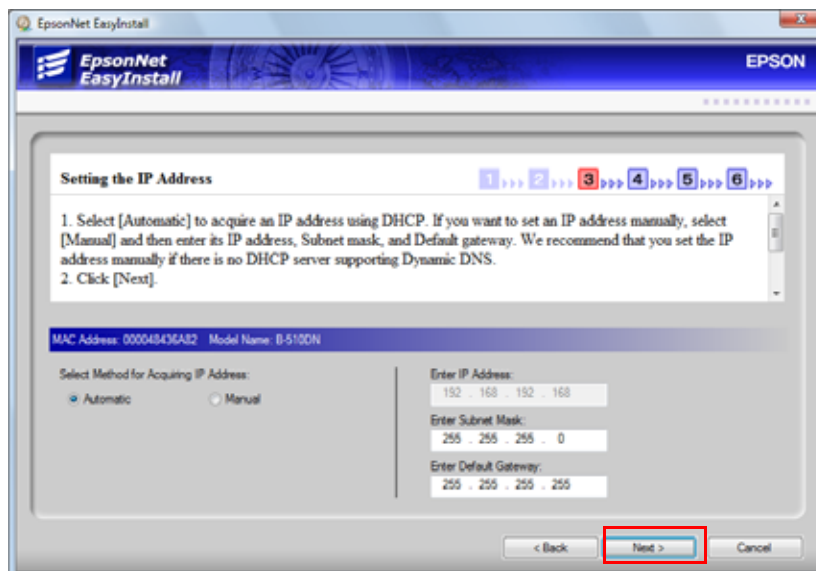
Note:

*If the Windows Security Alert window appears, click the **Unblock** button; otherwise the printer will not be listed on the screen of EpsonNet EasyInstall.*

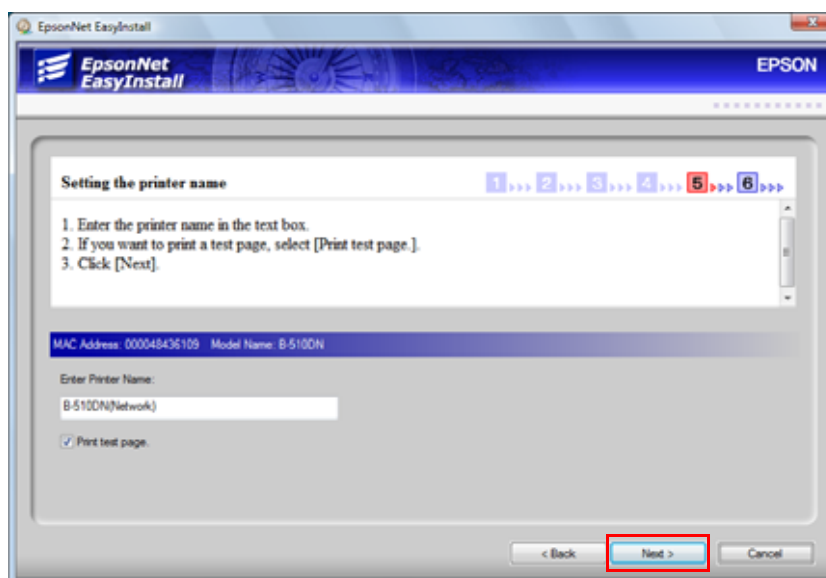
5. When you see the following screen, select the printer and click **Next**.



6. If you see the following screen, select **Automatic**. If you need to set the IP address manually, select **Manual** and enter the IP address, subnet mask, and default gateway. Then click **Next**. Follow the instructions on the screen to install the printer driver.



7. When you see the following screen, enter a different name for the printer if you want. If you want to print a test page, select the **Print test page** check box. Click **Next**.

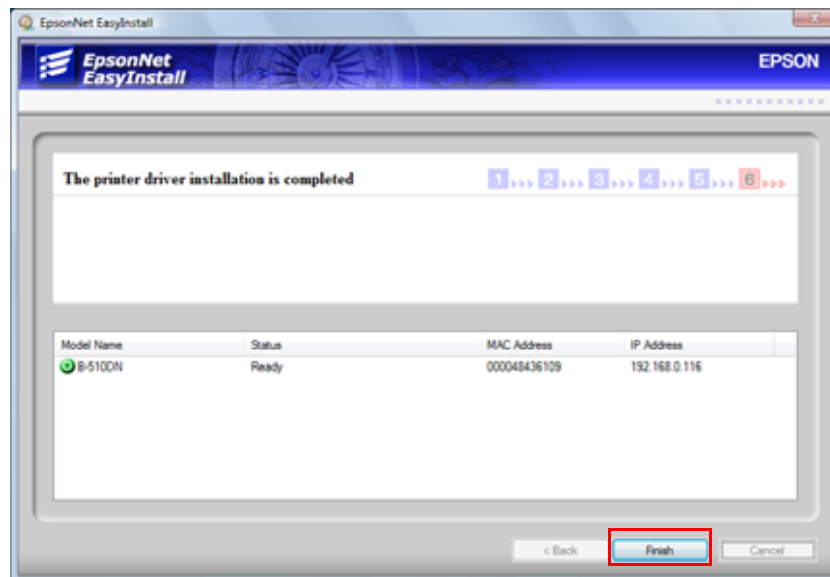


Note:

If the Windows Security Alert window appears, click the **Unblock** button.

8. Follow the instructions on the screen to complete the installation.

9. When you see this screen, click **Finish**. Then follow the instructions to register your printer.



Repeat these steps for every computer on the network that will print with the B-310N or B510DN.

Note:

- ❑ To find the supported OS versions for the printer, see the following section.
 - ➔ See “Operating System Versions” on page 186.

Diagnosing the Problem

Troubleshooting printer problems is best handled in two steps: first diagnose the problem, then apply likely solutions until the problem is fixed.

The information that you need to diagnose and solve most common problems is provided by online problem solving, the control panel, the EPSON Status Monitor utility, or by running a printer operation check. Refer to the appropriate section below.

If you have a specific problem relating to print quality, a printout problem not related to print quality, or a paper feeding problem, or if the printer does not print at all, refer to the appropriate section.

To solve a problem, you may need to cancel printing.

➡ See “Canceling Printing” on page 48.

Error Indicators

You can diagnose and solve most problems by checking the error messages on the LCD screen. If the printer stops working and displays a message on the LCD screen, refer to the section below to diagnose the problem, and then follow the recommended corrective measures.

➡ See “Status and Error Messages” on page 107.

Running a Printer Operation Check

If you are unable to determine the source of the problem, run a printer operation check to help you determine whether the problem comes from the printer or your computer.

To run a printer operation check, follow these steps.

1. Make sure both the printer and computer are turned off.
2. Disconnect the cable from the interface connector of the printer.
3. Make sure that letter/A4 size paper is loaded in the front paper cassette.

4. Turn on the printer and make sure that **READY** appears on the LCD screen.
5. Press the ► **Right** button to enter Menu mode.
6. Press the ▼ **Down** or ▲ **Up** button to display **TEST PRINT**, and then press the **OK** or ► **Right** button.
7. Press the ▼ **Down** or ▲ **Up** button to display **NOZZLE CHECK**, and then press the **OK** or ► **Right** button.
8. Press the **OK** button to start printing a nozzle check pattern.

A test page prints showing a nozzle check pattern. If the pattern has gaps, you need to clean the print head.

➔ See “Cleaning the Print Head” on page 131.

- ❑ If the test page prints, the problem probably lies in your software settings, the cable, or your computer. It is also possible that your software may not be installed correctly. Try uninstalling your software and reinstalling it.
➔ See “Uninstalling the Printer Software” on page 16.
- ❑ If the test page does not print, you may have a problem with your printer. Try the suggestions in the following section.
➔ See “The Printer Does Not Print” on page 160.

Checking Printer Status

For Windows

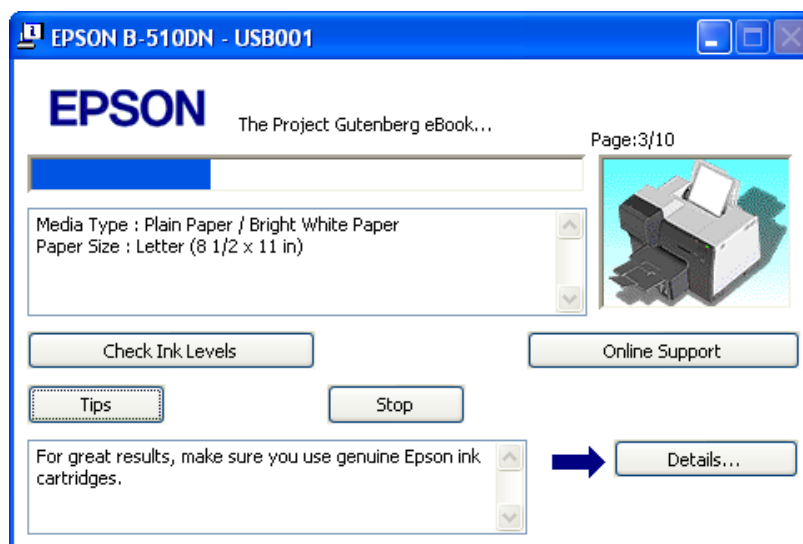
Note:

When you use your printer as a shared printer on a network with the following combinations of computers, the client operating systems are not able to communicate with the printer, so that some functions are not available for that particular client.

Server	Client
Windows 7/Windows Vista/Windows XP/Windows Server 2003/Windows Server 2008	Windows 2000
Windows 2000	Windows 7/Windows Vista/Windows XP/Windows Server 2003/Windows Server 2008

Using the Progress Meter

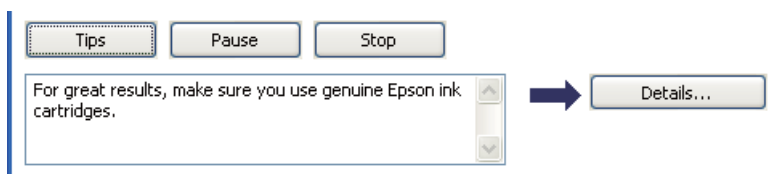
When you send a print job to the printer, the progress meter appears, as shown in the illustration below.



The progress meter indicates the progress of the current print job and provides printer status information. This window also displays error messages as well as helpful tips for better printing. Refer to the appropriate section below.

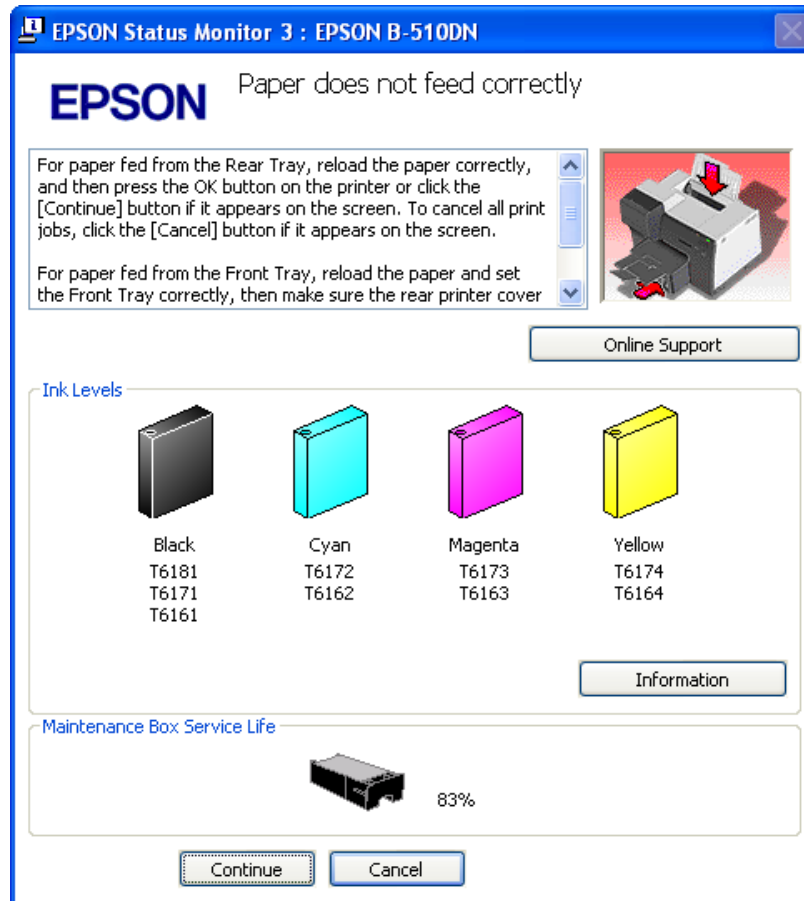
Tips

Tips for getting the most out of your Epson printer driver appear in the text box of the progress meter window. A new tip appears every 15 seconds. For more details on the tip displayed in the window, click the **Details** button.



Error Messages

If a problem occurs during printing, an error message appears in the text box of the progress meter window. For more detailed information, click **Online Support** to access Epson's support website.



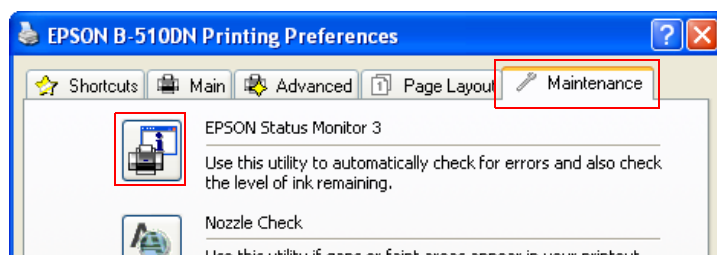
Using EPSON Status Monitor 3

EPSON Status Monitor 3 displays detailed information on the printer status.

There are two ways to access EPSON Status Monitor 3:

- ☐ Double-click the printer shortcut icon on the Windows taskbar. If the printer icon does not appear, refer to the following section to add the icon.
 - ➡ See “From the Shortcut Icon on the Taskbar” on page 15.

- ❑ Open the printer driver, click the **Maintenance** tab, then click the **Epson Status Monitor 3** button.



When you access EPSON Status Monitor 3, the following window appears:



EPSON Status Monitor 3 provides the following information:

- ❑ **Ink Status:**
EPSON Status Monitor 3 provides a graphic display of the ink status. To see detailed information about the ink cartridges, click the **Information** button.
- ❑ **Maintenance box Status:**
EPSON Status Monitor 3 provides a graphic display of the maintenance box status.

❑ **Online Support:**

You can access Epson's support website from EPSON Status Monitor 3. If you encounter a problem, click **Online Support** in the EPSON Status Monitor 3 window.

For Mac OS X

Using EPSON StatusMonitor

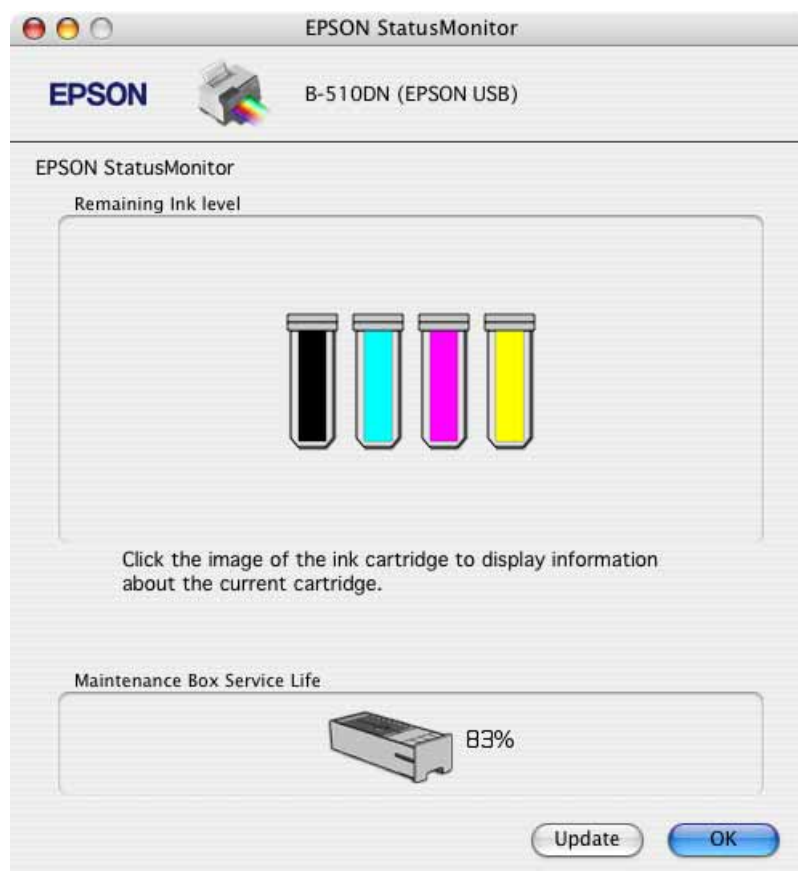
If EPSON StatusMonitor detects a printer problem, it will inform you with an error message.

Follow these steps to access EPSON StatusMonitor.

1. Access the EPSON Printer Utility3.

➡ See "Accessing the Printer Driver for Mac OS X" on page 15.

2. Click the **EPSON StatusMonitor** button. The EPSON StatusMonitor appears.



The Paper Jams

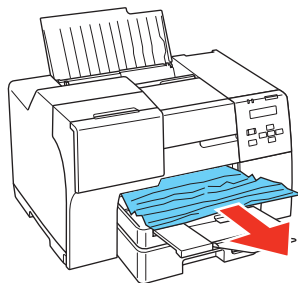
**Caution:**

Pull out the jammed paper gently. If you remove the jammed paper with force, torn pieces may stay inside the printer or the printer may be damaged.

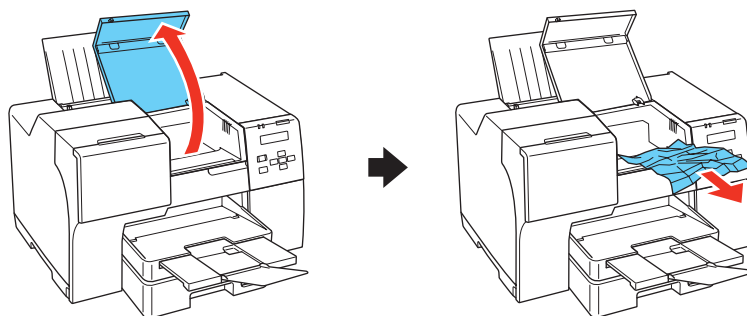
1. Press the **OK** button to eject the jammed paper.
2. If the error does not clear, turn off the printer and remove all of the paper inside, including any torn pieces. Refer to the appropriate section below.

In the output tray:

Gently pull out the jammed paper forward.

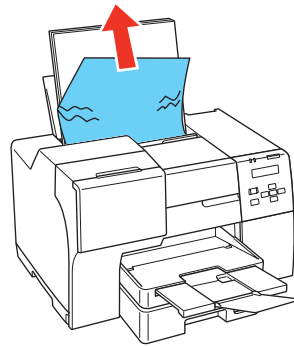
**Inside the printer:**

Open the front printer cover, and then gently pull out the jammed paper forward.



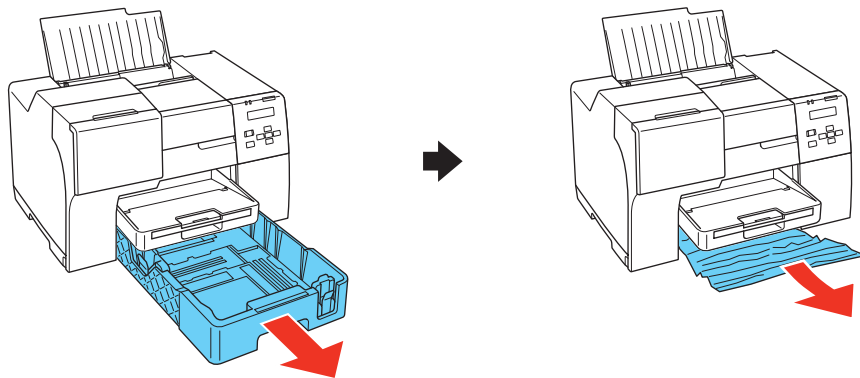
In the rear sheet feeder:

Gently pull out the jammed paper upward.



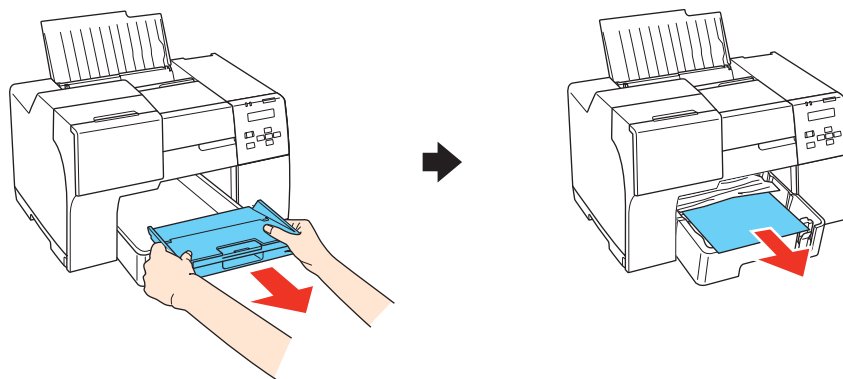
In the front paper cassette:

Close the output tray and pull out the front paper cassette. Then gently pull out the jammed paper forward.



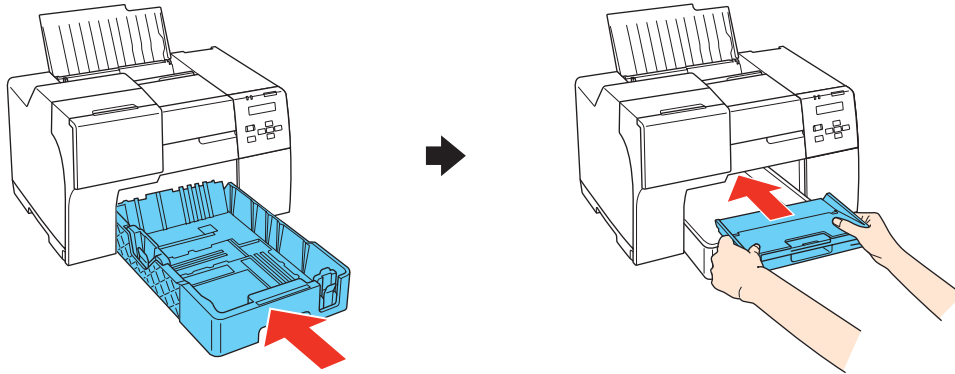
Note:

- ❑ If you cannot pull out the front paper cassette, pull out the output tray first and remove all paper that is loaded in the front paper cassette.



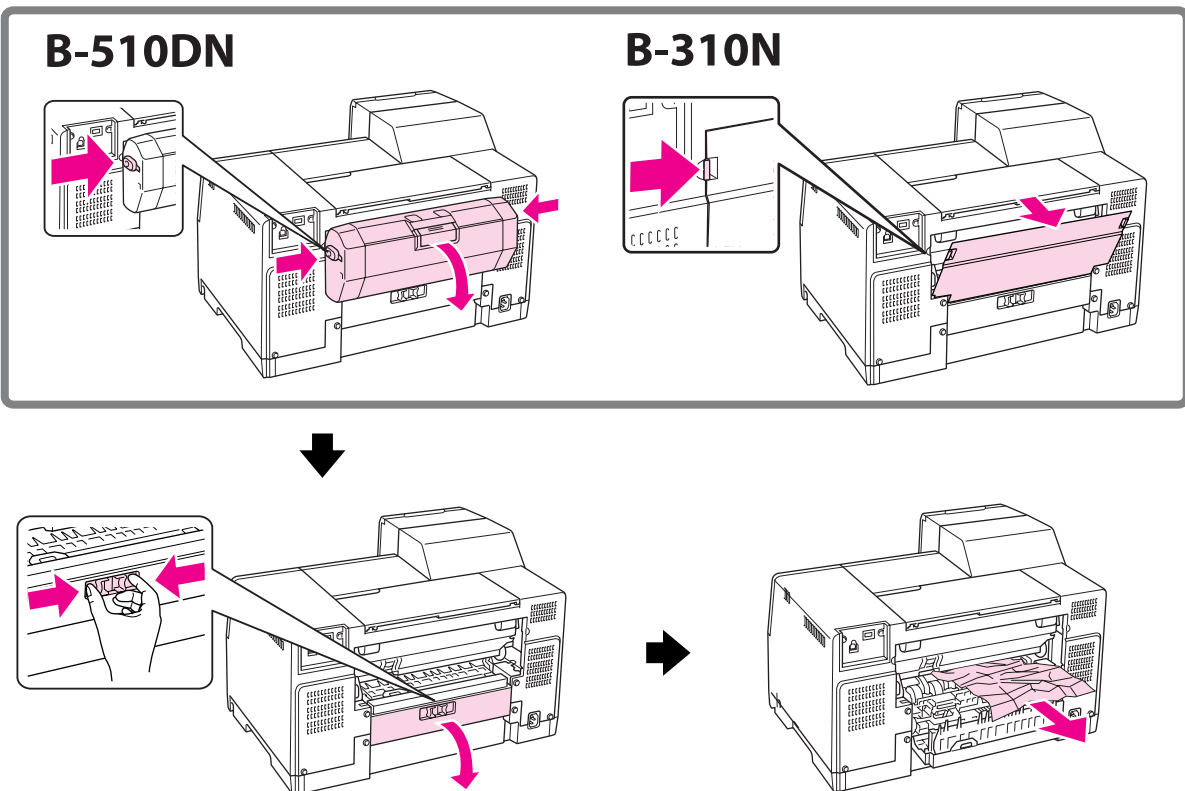
Then pull out the front paper cassette and gently pull out the jammed paper forward.

- ❑ After you remove the jammed paper and insert the front paper cassette, reinsert the output tray into the printer.



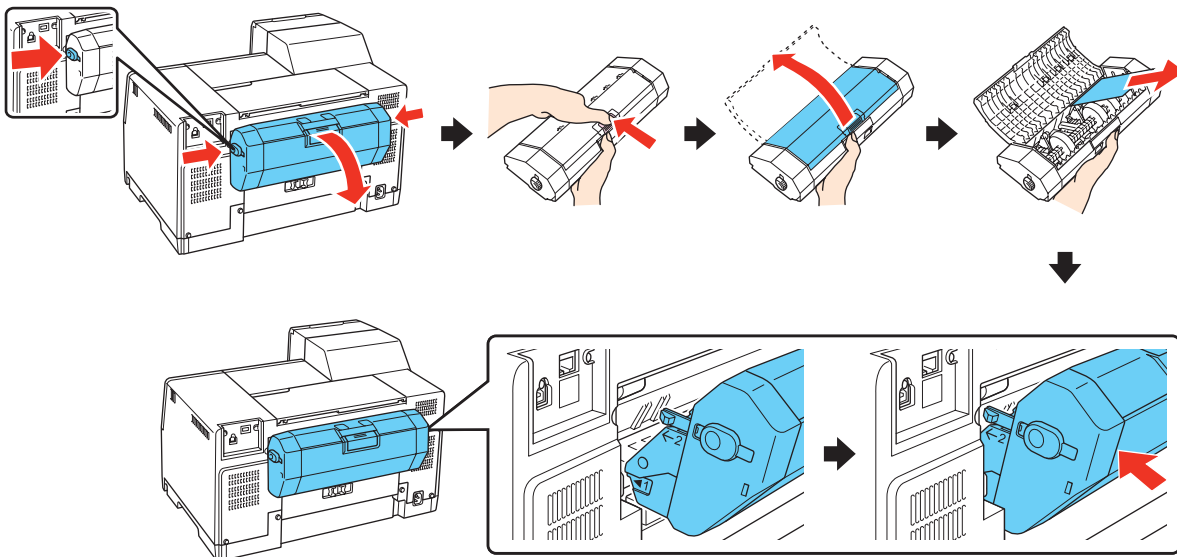
In the back of the printer:

Remove the duplex unit (B-510DN) or the upper rear printer cover (B-310N) and open the lower rear printer cover. Then gently pull out the jammed paper.



In the duplex unit:

Remove the duplex unit and open the cover of the duplex unit. Then, gently remove the jammed paper.



3. Close the printer cover and turn on the printer.

4. Reload the paper and press the **OK** button to resume printing.

Note:

If you cannot easily remove a foreign object, do not use force and do not disassemble the printer. Contact Epson for assistance.

➔ See “Where To Get Help” on page 164.






If your paper jams frequently, make sure of the following:

- ☐ The paper is smooth, not curled or wrinkled.
- ☐ You are using high quality paper.
- ☐ The printable side of the paper is face-up in the rear sheet feeder and face-down in the front paper cassette.
- ☐ You fan the paper stack before loading.
- ☐ The paper is not loaded above the \cong arrow mark inside the edge guide.
- ☐ The number of sheets in the paper stack does not exceed the limit specified for that paper.
 - ➔ See “Paper Loading Capacities” on page 20.
- ☐ The left edge guide is snug against the left edge of the paper.

- ❑ The printer is on a flat, stable surface that extends beyond the base in all directions. The printer will not operate properly if it is tilted.

Print Quality Problems

If you are having print quality problems, then compare it with the illustrations below. Click the caption under the illustration that best resembles your printout.

<p>enthalten alle i Aufdruck. W J 5008 "Regel</p> <p>Good sample</p>	 <p>Good sample</p>
<p>enthalten alle i Aufdruck. W J 5008 "Regel</p> <p>"Horizontal Banding" on page 153</p>	<p>enthalten alle i Aufdruck. W J 5008 "Regel</p> <p>"Vertical Misalignment or Banding" on page 153</p>
 <p>"Horizontal Banding" on page 153</p>	 <p>"Vertical Misalignment or Banding" on page 153</p>
 <p>"Incorrect or Missing Colors" on page 153</p>	 <p>"Blurry or Smeared Printout" on page 154</p>

Horizontal Banding

- ☐ Make sure the printable side of the paper is face-up in the rear sheet feeder and face-down in the front paper cassette.
- ☐ Run the Head Cleaning utility to clear any clogged ink nozzles.
➔ See “Cleaning the Print Head” on page 131.
- ☐ Use up ink cartridges within six months of opening vacuum package.
- ☐ For best print quality, use genuine Epson ink cartridges.
- ☐ Check the ink cartridge status.
➔ See “Checking the Ink Cartridge Status” on page 114.

If the graphic displays the ink is low or expended, replace the appropriate ink cartridge.
➔ See “Replacing an Ink Cartridge” on page 120.

- ☐ Make sure the paper type selected in the printer driver is appropriate for the type of paper loaded in the printer.
➔ See “Selecting the Correct Paper Type or Media Type” on page 28.

Vertical Misalignment or Banding

- ☐ Make sure the printable side of the paper is face-up in the rear sheet feeder and face-down in the front paper cassette.
- ☐ Run the Head Cleaning utility to clear any clogged ink nozzles.
➔ See “Cleaning the Print Head” on page 131.
- ☐ Run the Print Head Alignment utility.
➔ See “Aligning the Print Head” on page 133.
- ☐ Clear the **High Speed** check box from the Advanced window in your printer driver (Windows). See the printer driver online help for details.
- ☐ Make sure the paper type selected in the printer driver is appropriate for the type of paper loaded in the printer.
➔ See “Selecting the Correct Paper Type or Media Type” on page 28.

Incorrect or Missing Colors

- ☐ For Windows, clear the **Grayscale** setting in the Advanced window in your printer driver.

For Mac OS X, change the Color setting to **Color** in Print Settings dialog in the Print dialog of your printer driver.

See the printer driver online help for details.

- ☐ Adjust the color settings in your application or in your printer driver settings.

For Windows, confirm the settings in the Advanced window.

For Mac OS X, confirm the settings in the Print Settings dialog from the Print dialog.

See the printer driver online help for details.

- ☐ Run the Head Cleaning utility.
 - ➔ See “Cleaning the Print Head” on page 131.
- ☐ Check the ink cartridge status.
 - ➔ See “Checking the Ink Cartridge Status” on page 114.

If the graphic displays the ink is low or expended, replace the appropriate ink cartridge.

➔ See “Replacing an Ink Cartridge” on page 120.

- ☐ If your paper runs out, replace it as soon as possible. If the printer is left without paper for a long period of time, the colors of your next print job may be incorrect.

Blurry or Smeared Printout

- ☐ Use only paper recommended by Epson.
 - ➔ See “Paper, Consumables, and Options” on page 167.
- ☐ Make sure the printer is on a flat, stable surface that extends beyond the base in all directions. The printer will not operate properly if it is tilted.
- ☐ Make sure your paper is not damaged, dirty, or too old.
- ☐ Make sure your paper is dry and the printable side is facing up in the rear sheet feeder and facing down in the front paper cassette.
- ☐ If the paper is curled toward the printable side, flatten it or curl it slightly in the opposite direction.
- ☐ Make sure the paper type selected in the printer driver is appropriate for the type of paper loaded in the printer.
 - ➔ See “Selecting the Correct Paper Type or Media Type” on page 28.
- ☐ Remove each sheet from the output tray as it is printed.

- ☐ If you are printing on glossy media, place a support sheet (or a sheet of plain paper) beneath the stack, or load only one sheet at a time.
- ☐ Do not touch or allow anything to come into contact with the printed side of paper with a shiny finish. To dry your printouts, follow the instructions on the sheet packed with the paper.
- ☐ Run the Head Cleaning utility.
 - ➔ See “Cleaning the Print Head” on page 131.

Ink Bleeds Through the Page

- ☐ Use the Print Saturation Adjustment feature to reduce the amount of ink on the page and increase the drying time if necessary.
 - ➔ See “Special Settings for Automatic Double-sided Printing (Using the Duplex Unit)” on page 56.
- ☐ Adjust the ink levels in the photo image.

Miscellaneous Printout Problems

Incorrect or Garbled Characters

- ☐ Turn off the printer and computer. Make sure the printer’s interface cable is securely plugged in.
- ☐ Clear the print job from the print queue.
- ☐ Uninstall the printer driver, then reinstall it.
 - ➔ See “Uninstalling the Printer Software” on page 16.

Incorrect Margins

- ☐ Confirm the margin settings in your application. Make sure that the margins are within the printable area of the page.
 - ➔ See “Printable Area” on page 171.
- ☐ Make sure the printer driver settings are appropriate for the paper size you are using.

For Windows, confirm the settings in the Main Window.

For Mac OS X, confirm the settings in the Page Setup dialog or Print dialog. See the printer driver online help for details.

- ☐ Uninstall the printer driver, then reinstall it.
 - ➔ See “Uninstalling the Printer Software” on page 16.

Printout Has a Slight Slant

Make sure that the paper is loaded into the front paper cassette or the rear sheet feeder correctly.

- ➔ See “Loading Paper” on page 21.

Inverted Image

- ☐ Clear the **Mirror Image** check box in the settings from your printer driver, or turn off the Mirror Image setting in your application.

For Windows, confirm the settings in the Page Layout window.

For Mac OS X, confirm the settings in the Print Settings dialog in the Print dialog.

For instructions, see the online help for your printer driver or for your application.

- ☐ Uninstall the printer driver, then reinstall it.
 - ➔ See “Uninstalling the Printer Software” on page 16.

Blank Pages Print

- ☐ Make sure the printer driver settings are appropriate for the paper size you are using.

For Windows, confirm the settings in the Main window.

For Mac OS X, confirm the settings in the Page Setup dialog or Print dialog.

See the printer driver online help for details.

- ☐ Confirm the **Skip Blank Page** setting from your printer driver.

For Windows, click the **Speed & Progress** button on the Maintenance window.

For Mac OS X, confirm the Extension Settings in the Print dialog.

If it is selected, blank pages in your data are not printed.

- ☐ Uninstall the printer driver, then reinstall it.
 - ➔ See “Uninstalling the Printer Software” on page 16.

After trying one or more of these solutions, run a printer operation check to check your results.

- ➔ See “Running a Printer Operation Check” on page 142.

Printed Side is Smeared or Scuffed

- ☐ If the paper is curled toward the printable side, flatten it or curl it slightly in the opposite direction.
- ☐ Clear the **High Speed** check box in the settings from your printer driver.

For Windows, confirm the settings in the Advanced window.

For Mac OS X, confirm the settings in the Print Settings dialog in the Print dialog.

See the printer driver online help for details.

- ☐ Uninstall the printer driver, then reinstall it.
 - ➔ See “Uninstalling the Printer Software” on page 16.
- ☐ Make sure the paper type selected in the printer driver is appropriate for the type of paper loaded in the printer.
 - ➔ See “Selecting the Correct Paper Type or Media Type” on page 28.

Printing is too Slow

- ☐ Make sure the paper type selected in the printer driver is appropriate for the type of paper loaded in the printer.
 - ➔ See “Selecting the Correct Paper Type or Media Type” on page 28.
- ☐ For Windows, clear all customized settings and select **Text** as the Quality Option from your printer driver’s Main window.

For Mac OS X, clear all customized settings and select **Automatic** as the Mode and move the slider to **Speed** in the Print Settings dialog in the Print dialog of your printer driver. See the printer driver online help for details.

- ➔ See “Accessing the Printer Driver for Mac OS X” on page 15.

- ☐ Close any unnecessary applications.

- ❑ If you print continuously for an extended period, the paper may temporarily stop feeding or the print head may pause for a while. This is to slow down the printing speed and prevent the printer mechanism from overheating and being damaged. If this happens, you can continue to print, but we recommend stopping and leaving the printer for about thirty minutes with the power on. (The printer does not recover with the power off.) After you restart, the printer will print at normal speed.
- ❑ This printer checks the print head on a regular basis to keep the print head clean and to ensure you receive premium print quality. If the print head nozzles are clogged, the printer automatically cleans the print head. During self-checking, and during self-cleaning operation, the print speed may decrease.
- ❑ Make sure Low Speed Mode is not enabled in the printer menu.
➡ See “Maintenance Menu” on page 105.
- ❑ Uninstall the printer driver, then reinstall it.
➡ See “Uninstalling the Printer Software” on page 16.


If you try all of the methods above and cannot solve the problem, see the following:

- ➡ See “Increasing the Print Speed (for Windows only)” on page 161.

Paper Does Not Feed Correctly

Paper Does Not Feed

Remove the stack of paper and make sure of the following:

- ❑ The paper is not curled or creased.
- ❑ The paper is not too old. See the instructions that came with the paper for more information.
- ❑ The paper fits under the  arrow mark inside the edge guide.
- ❑ Avoid using coated color-laser paper, which can lead to unsatisfactory results.
- ❑ The number of sheets in the paper stack does not exceed the limit specified for the media.
➡ See “Paper Loading Capacities” on page 20.
- ❑ Paper is not jammed inside the printer. If it is, remove the jammed paper.
➡ See “The Paper Jams” on page 148.

- ❑ You have followed all special loading instructions that came with your paper. Load the paper again.
 - ➔ See “Loading Paper” on page 21.

Multiple Pages Feed

- ❑ Make sure the paper stack fits under the \cong arrow mark inside the edge guide.
- ❑ Make sure the left edge guide is snug against the left edge of the paper.
- ❑ Make sure the paper is not curled or folded. If so, flatten it or curl it slightly toward the opposite side before loading.
- ❑ Remove the stack of paper and make sure that the paper is not too thin.
 - ➔ See “Paper” on page 170.
- ❑ Fan the edges of the stack to separate the sheets, then reload the paper.
- ❑ If too many copies of a file are being printed, confirm the Copies setting in your printer driver as follows, and also confirm in your application.

For Windows, confirm the Copies setting on the Page Layout window.

For Mac OS X 10.4, confirm the Copies setting in the Copies & Pages setting in the Print dialog.

For Mac OS X 10.5 and 10.6, confirm the Copies setting in the Print dialog.

See the printer driver online help for details.

Paper is Improperly Loaded

If you have loaded the paper too far into the printer, the printer cannot feed the paper correctly. Turn off the printer and gently remove the paper. Then turn on the printer and reload the paper correctly.

Paper is not Ejected Fully or is Wrinkled


- ❑ Clear the jammed paper as explained in “The Paper Jams” on page 148. Also, check the Paper Size setting in your application or printer settings. See the online help for details.
- ❑ If the paper is wrinkled when it comes out, it may be damp or too thin. Load a new stack of paper.

Note:

Store any unused paper in its original packaging in a dry area.

The Printer Does Not Print

All Lights Are Off

- ☐ Press the  **Power** button to make sure the printer is on.
- ☐ Turn off the printer and make sure that the power cord is securely plugged in.
- ☐ Make sure that your outlet works and is not controlled by a wall switch or timer.

Lights Came On and then Went Out



The printer's voltage may not match the outlet rating. Turn off the printer and unplug it immediately. Then check the label on the back of the printer.

**Caution:**

If the voltage does not match, DO NOT PLUG YOUR PRINTER BACK IN. Contact Epson.

➔ See "Where To Get Help" on page 164.

The Power Light is On

- ☐ If no buttons are pressed for 3 minutes, all lights other than the  **Power** light automatically turn off to save energy. Press any button (except the  **Power** button) to return the control panel to its previous state.
- ☐ If printing with a USB connection, make sure the USB cable is securely connected to the printer and to your computer and check that the USB cable is not damaged or badly crimped.
- ☐ If you are using the USB interface, make sure your cable meets the USB 1.1 or 2.0 standards.
- ☐ If you are connecting the printer to your computer via a USB hub, connect the printer to the first-tier hub from your computer. If the printer driver is still not recognized on your computer, try to directly connect the printer to your computer without the USB hub.
- ☐ If you are connecting the printer to your computer via a USB hub, make sure the USB hub device is recognized by your computer.

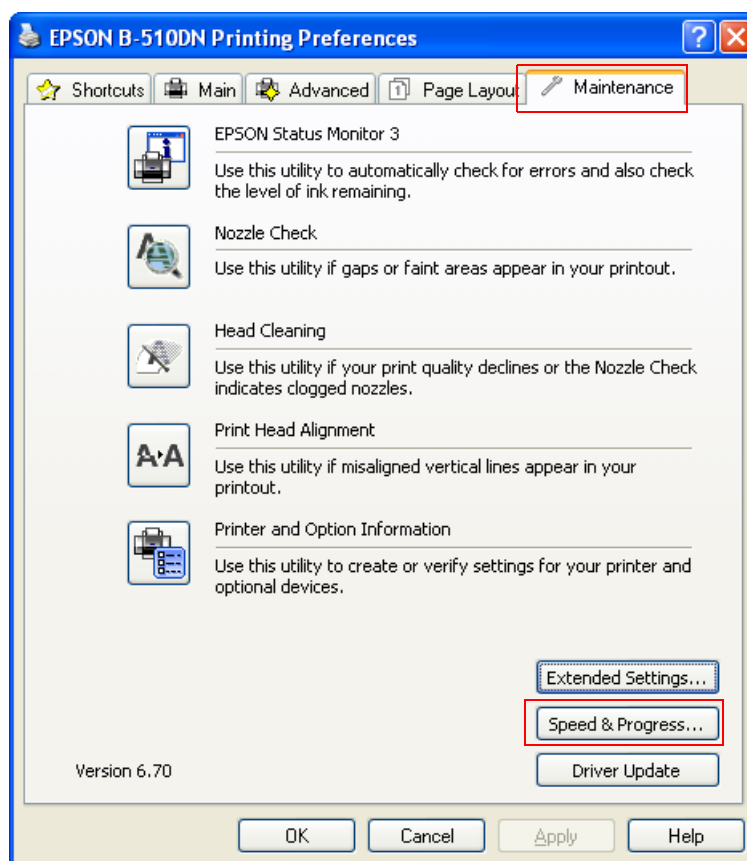
- ❑ Turn off the printer and the computer, disconnect the printer's interface cable, then print an operation check page.
 - ➔ See "Running a Printer Operation Check" on page 142.

If the check page prints correctly, make sure the printer driver and your application are installed correctly.

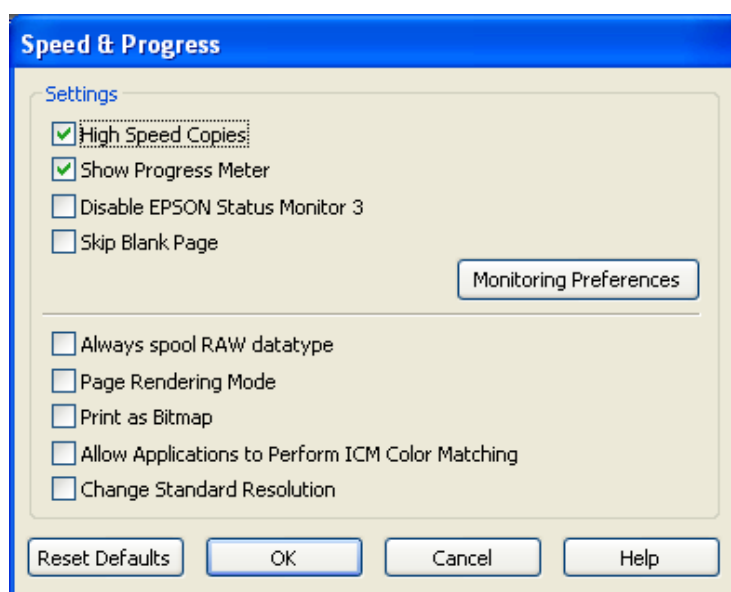
- ❑ If you are trying to print a large image, your computer may not have enough memory. Try reducing the resolution of your image or printing the image at a smaller size. You may need to install more memory in your computer.
- ❑ Uninstall the printer driver, then reinstall it.
 - ➔ See "Uninstalling the Printer Software" on page 16.

Increasing the Print Speed (for Windows only)

You can increase print speed by selecting certain settings in the Speed & Progress window. Click the **Speed & Progress** button on your printer driver's Maintenance window.



The following dialog box appears.



The table below lists the factors affecting print speed.

Print speed	Faster	Slower
High Speed Copies	On	Off
Always spool RAW datatype	On	Off
Page Rendering Mode	On	Off
Print as Bitmap	On	Off

For more details on each item, see the online help.

Other Problems

Print Head Cleaning Does Not Start

- ❑ Make sure that no error indicator lights are on. If any error occurs, recover from the error status.
 - ➔ See “Error Indicators” on page 142.
- ❑ Make sure that sufficient ink remains for printing. If the ink cartridge is expended, replace the cartridge.
 - ➔ See “Replacing an Ink Cartridge” on page 120.

Color Ink is Consumed Even When Printing in Black Ink Only

Not only the black ink but also the color ink is consumed during the following operations:
print head cleaning and self-cleaning.

Where To Get Help

Epson Technical Support

Visit Epson's support website for the Epson B-510DN or B-310N for solutions to common problems. You can download drivers and documentation, get FAQs and troubleshooting advice, or e-mail Epson with your questions.

Speak to a Support Representative

Before you call Epson for support, please have the following information ready:

- ☐ Product name (Epson B-510DN or B-310N)
- ☐ Product serial number (located on the back of the printer)
- ☐ Proof of purchase (such as a store receipt) and date of purchase
- ☐ Computer configuration
- ☐ Description of the problem

Then call:

- ☐ U.S.: (562) 276-7202, 6 AM to 6 PM, Pacific Time, Monday through Friday.
- ☐ Canada: (905) 709-2567, 6 AM to 6 PM, Pacific Time, Monday through Friday.

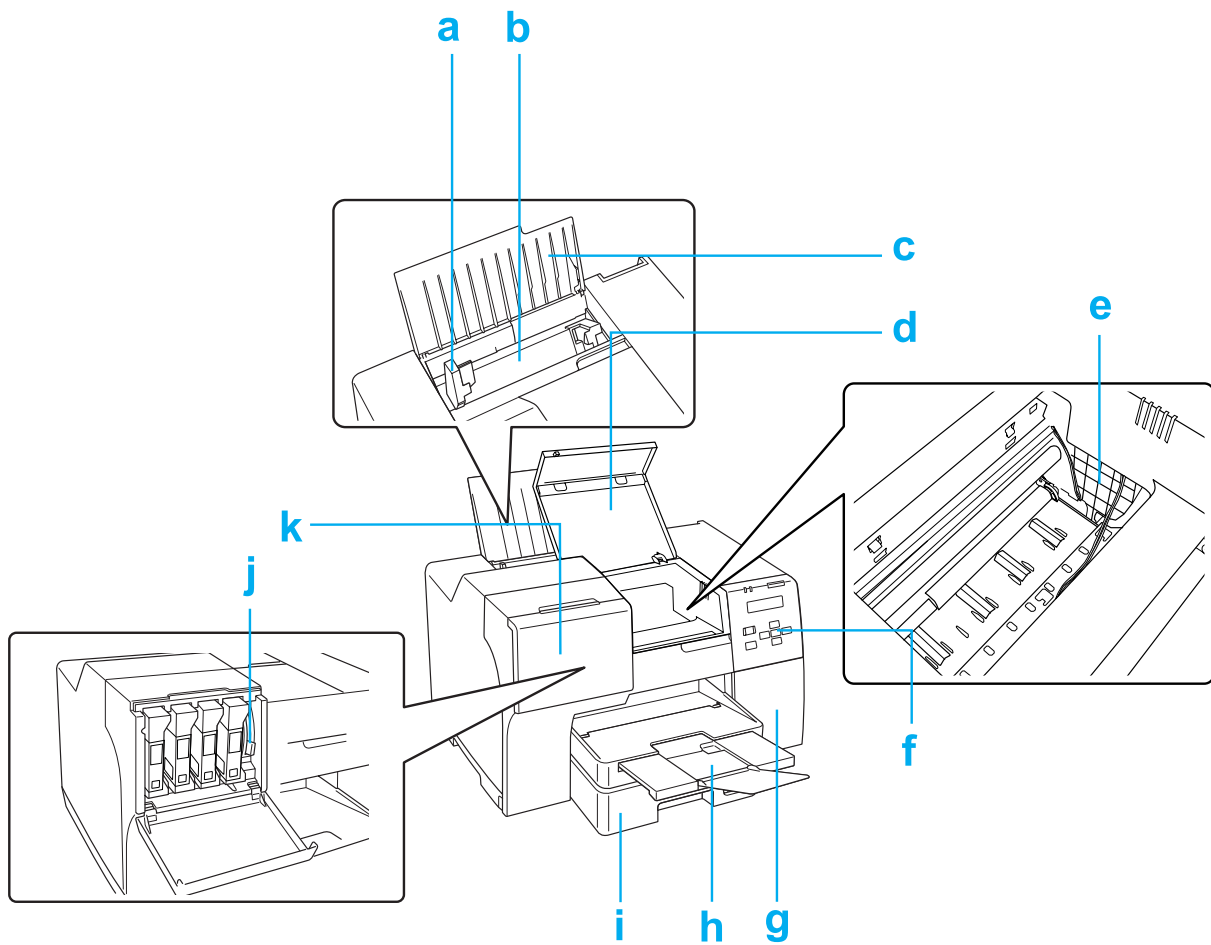
Days and hours of support are subject to change without notice. Toll or long distance charges may apply.

Purchase Accessories

You can purchase genuine Epson accessories from an Epson authorized reseller. To find the nearest reseller, call 800-GO-EPSON (800-463-7766). Or you can purchase online at <http://www.epsonstore.com> (U.S. sales) or <http://www.epson.ca> (Canadian sales).

Printer Parts

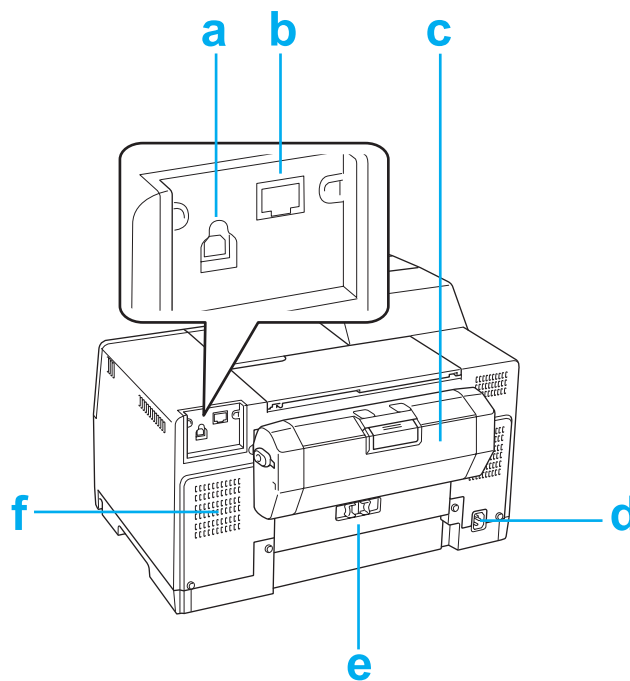
B-310N and B-510DN Front View



- a. Edge guide: Holds your paper straight in the rear sheet feeder. Move it to the edge of your paper.
- b. Rear sheet feeder: Feeds paper for printing.
- c. Paper support: Supports the paper loaded in the rear sheet feeder.
- d. Front printer cover: Covers the printing mechanism. Open only when the paper jams.
- e. Print Head: Prints ink on your paper.

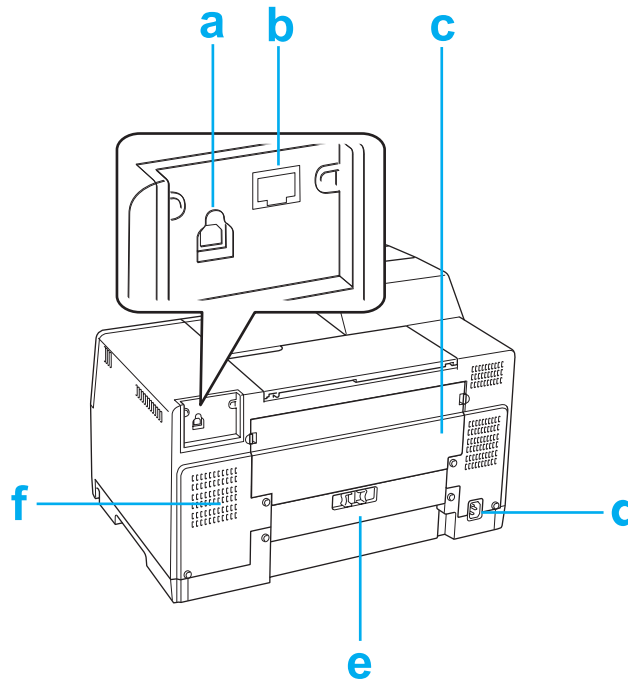
- f. Control panel: Use the buttons and monitor the LCD screen and lights to control your printer.
➔ See "Using the Control Panel" on page 100.
- g. Maintenance box cover: Covers the maintenance box. Open only when replacing the maintenance box.
- h. Output tray: Holds the ejected paper.
- i. Front paper cassette: Holds your paper and feeds it for printing.
- j. Cartridge lever: Locks the installed ink cartridges.
- k. Cartridge cover: Covers the ink cartridges. Open when replacing the ink cartridges. When using the extra high capacity ink cartridge, leave opened.

B-510DN Rear View



- a. USB connector: Connects the USB cable from your computer to the printer.
- b. Ethernet connector: Connects the 10Base-T/100Base-TX cable from your computer to the printer.
- c. Duplex unit: Supports automatic double-sided printing.
- d. AC inlet: Connects the power cord.
- e. Rear printer cover: Covers the printing mechanism. Open only when the paper jams.
- f. Air vents: Eject heated air from the printer.

B-310N Rear View



- a. USB connector: Connects the USB cable from your computer to the printer.
- b. Ethernet connector: Connects the 10Base-T/100Base-TX cable from your computer to the printer.
- c. Upper rear printer cover: Covers the printing mechanism. Open when attaching the duplex unit and when the paper jams in the back of the printer.
- d. AC inlet: Connects the power cord.
- e. Rear printer cover: Covers the printing mechanism. Open only when the paper jams.
- f. Air vents: Eject heated air from the printer.

Paper, Consumables, and Options

Paper

Epson offers specially designed paper and other print media for all your printing needs.

Note:

You can find the part numbers for the following Epson special papers on the Epson website.

➔ See “Epson Technical Support” on page 164.

Paper	Size	Part numbers
Epson Bright White Paper	Letter	S041586
Epson Premium Presentation Paper Matte	Letter, 8 × 10	S041257, S041467
Epson Premium Presentation Paper Matte Double-sided	Letter	S041568
Epson Presentation Paper Matte	Letter, Legal	S041062, S041067
Epson Photo Quality Self-adhesive Sheets	A4	S041106

Note:

The availability of paper varies by location.

Ink Cartridges

You can use the following ink cartridges with this printer:

Ink cartridge	Part numbers			
	B-510DN			B-310N
	Standard capacity	High capacity	Extra High capacity	
Black	T6161	T6171	T6181	T6161
Cyan	T6162	T6172	–	T6162
Magenta	T6163	T6173	–	T6163
Yellow	T6164	T6174	–	T6164

Maintenance Box

You can use the following maintenance box with the B-310N and B510DN:

	Part number
Maintenance Box	T619000

Duplex Unit (B-310N Users only)

You can use the following duplex unit with the B-310N.

	Part number
Duplex unit	C12C802531

Legal-size Paper Support

You can use the following legal-size paper support with this printer.

	Part number
Legal-size paper support	C12C815341

Legal-size Paper Cassette

You can use the following legal-size paper cassette with this printer (included with B-510DN).

	Part number
Legal-size paper cassette	C12C817001

System Requirements

Windows Requirements

To use this printer, you must have any of the following Windows operating systems installed. For details on interfaces and operating systems, refer to the following table.

System	PC Interface
Windows 7, Windows Vista, Windows XP, Windows 2000, and Windows 2003 USB 2.0 Host Driver by Microsoft must be used.	USB 1.0 and 2.0 Ethernet 100Base-TX/10Base-T

Macintosh Requirements

To connect this printer to a Macintosh computer, you must have any of the following Macintosh operating systems installed. For details on interfaces and operating systems, refer to the following table.

System	PC Interface
PowerPC-based or Intel-based Macintosh computers running Mac OS X 10.4.11 to 10.6.x	USB 1.0 or 2.0 Ethernet 100Base-TX/10Base-T

Technical Specifications

Paper

Note:

- ❑ *Since the quality of any particular brand or type of paper may be changed by the manufacturer at any time, Epson cannot attest to the quality of any non-Epson brand or type of paper. Always test samples of paper stock before purchasing large quantities or printing large jobs.*
- ❑ *Poor quality paper may reduce print quality and cause paper jams or other problems. Laser printer coated paper can also cause paper jams. If you encounter problems, switch to a higher grade of paper, or stop using laser printer coated paper.*
- ❑ *Use paper under normal conditions:
Temperature 59 to 77 °F (15 to 25 °C)
Humidity 40 to 60% RH*

Single sheets:

Size	A4 (8.3 × 11.7 in., 210 × 297 mm) 4 × 6 in. (10 × 15 cm) A6 (4.1 × 5.8 in., 105 × 148 mm) Half Letter (5.5 × 8.5 in.) 8 × 10 in. (20 × 25 cm) 16:9 wide size (4 × 7.11 in., 102 × 181 mm) Letter 8 1/2 × 11 in. Legal 8 1/2 × 14 in.
Paper types	Plain bond paper or special paper distributed by Epson
Thickness (for plain bond paper)	0.003 to 0.005 in. (0.08 to 0.11 mm)
Weight (for plain bond paper)	64 g/m ² to 90 g/m ²

Envelopes:

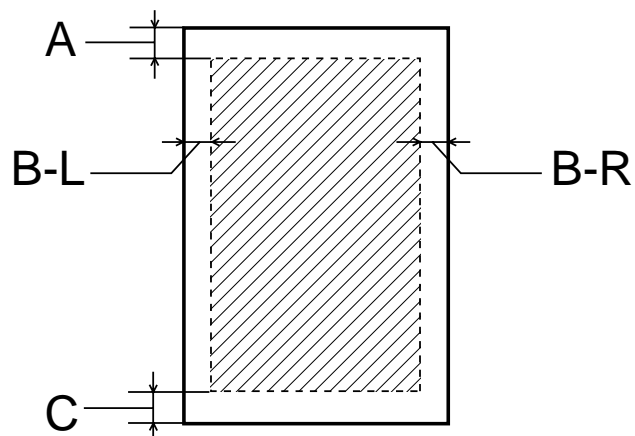
Size	Envelope #10 4 1/8 × 9 1/2 in.
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Paper types	Plain bond paper
Weight	75 g/m ² to 100 g/m ²

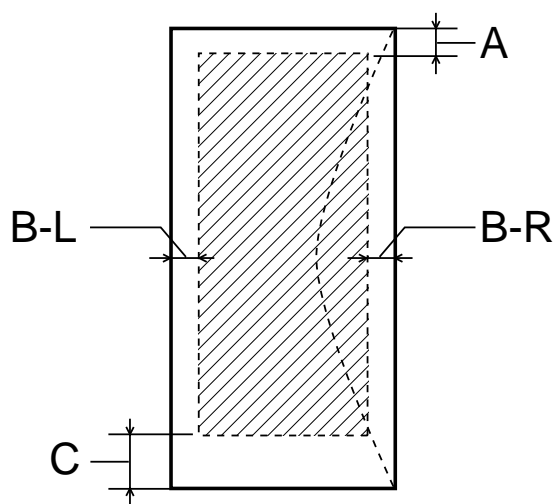
Printable Area

Diagonal lines show printable area.

Single sheets:



Envelopes:



	Minimum margin	
Media type	Single sheets	Envelopes
A	0.12 in. (3.0 mm)	0.12 in. (3.0 mm)
B-L, B-R	0.12 in. (3.0 mm)	0.20 in. (5.0 mm)

C	0.12 in. (3.0 mm)	0.12 in. (3.0 mm)
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Note:

- ❑ *Depending on the type of paper, print quality may decline in the top and bottom areas of the printout, or the area may be smeared.*
- ❑ *Automatic double-sided printing supports plain paper and Epson Bright White Paper only. Minimum bottom margin (C) is 0.63 in. (16 mm) when you use automatic double-sided printing.*

Ink Cartridges

Color	Yellow, Magenta, Cyan, Black
Cartridge life	Use within 6 months of opening the package.
Temperature	Storage: –4 to 104 °F (–20 to 40 °C) 1 month at 104 °F (40 °C) Freezing: * 8.6 °F (–13 °C)

* Ink thaws and is usable after approximately 3 hours at 77 °F (25 °C).

Note:

- ❑ *We recommend that you use genuine Epson cartridges and do not refill them. The use of other products may affect your print quality and could result in printer damage.*
- ❑ *The printer ships with full cartridges and part of the ink from the first cartridges is used for priming the printer.*
- ❑ *Yields vary considerably based on images printed, print settings, paper type, frequency of use and temperature. For print quality, a small amount of ink remains in the cartridge after the "replacement cartridge" indicator comes on.*

Mechanical

Paper path	Front paper cassette, rear sheet feeder
Loading capacity	<p>Front paper cassette About 510 sheets of letter/A4 paper at 75 g/m²*</p> <p>Front paper cassette (legal-size) About 510 sheets of legal paper at 75 g/m²*</p> <p>Rear sheet feeder About 150 sheets of letter/A4 paper at 75 g/m²*</p> <p>Using the optional legal-size paper support, about 60 sheets of legal-size paper at 75 g/m²*</p> <p>Output tray About 170 sheets</p>
Dimensions	<p>B-510DN</p> <p>Storage Width: 18.9 in. (480 mm) Depth: 21.5 in. (547 mm) Height: 12.3 in. (312 mm)</p> <p>Printing Width: 18.9 in. (480 mm) Depth: 25.8 in. (656 mm) Height: 14.6 in. (372 mm)</p>
	<p>B-310N</p> <p>Storage Width: 18.9 in. (480 mm) Depth: 16.5 in. (420 mm) Height: 12.3 in. (312 mm)</p> <p>Printing Width: 18.9 in. (480 mm) Depth: 24.6 in. (624 mm) Height: 14.6 in. (372 mm)</p>
Weight	<p>B-510DN Approx. 23.6 lb (10.7 kg) (without the ink cartridges)</p> <p>B-310N Approx. 21.8 lb (9.9 kg) (without the ink cartridges)</p>

* Loading capacity may decrease if the paper is curled.

Electrical

B-310N and B-510DN

		100-120 V Model	220-240 V Model
Input voltage range		AC 90 to 132 V	AC 198 to 264 V
Rated frequency range		50 to 60 Hz	
Input frequency range		49.5 to 60.5 Hz	
Rated current		0.7 A	0.4 A
Power consumption	Printing	Approx. 30.0 W (ISO/IEC10561 Letter Pattern)	Approx. 30.0 W (ISO/IEC10561 Letter Pattern)
	Ready mode	Approx. 6.5 W	Approx. 7.0 W
	Sleep mode	Approx. 3.5 W	Approx. 3.5 W
	Power off	Approx. 0.2 W	Approx. 0.4 W

Note:

Check the label on the back of the printer for its voltage.

Environmental

Temperature	Operation: 50 to 95 °F (10 to 35 °C) Storage: –4 to 104 °F (–20 to 40 °C) 1 month at 104 °F (40 °C)
Humidity	Operation: * 20 to 80% RH Storage: * 5 to 85% RH

* Without condensation

Standards and Approvals

U.S. model:

Safety	UL60950-1 CAN/CSA-C22.2 No. 60950-1
EMC	FCC Part 15 Subpart B Class B CAN/CSA-CEI/IEC CISPR 22 Class B

Interface

USB 2.0 Hi-Speed (Device Class for computers)
Ethernet 100BASE-TX/10 BASE-T

Options

Legal size paper support	Width: 6.9 in. (176 mm) Depth: 0.29 in. (7.4 mm) Height: 4.3 in. (110 mm) Weight: Approx. 1.5 oz (42 g)
Duplex unit (B-310N only)	Width: 12.3 in. (313 mm) Depth: 6.4 in. (163 mm) Height: 3.6 in. (92 mm) Weight: Approx. 1.98 lb (0.9 kg)
Legal-size paper cassette	Width: 9.8 in. (250 mm) Depth: 16.9 in. (430 mm) Height: 2.8 in. (71 mm) Weight: Approx. 1.5 lb (0.7 kg)

Monocolor Preference Mode:

This printer is designed to be used for high-color output. However, if you usually print using black only, you can contact Epson technical support for information about a monocolor preference mode available on the printer. If you decide you want to implement the mode, the technical support representative can also help you take the necessary steps to do that.

FCC Compliance Statement

For United States Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ☐ Reorient or relocate the receiving antenna.
- ☐ Increase the separation between the equipment and receiver.
- ☐ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ☐ Consult the dealer or an experienced radio/TV technician for help.

WARNING

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For Canadian Users

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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Version 2.0 - August 6, 2003

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EXHIBIT A.

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Operating System Versions

In this manual, the following abbreviations are used.

Windows refers to Windows 7, Windows Vista, XP, Server 2003, Server 2008, and 2000.

- ❑ Windows 7 refers to Windows 7 Home Premium Edition, Windows 7 Professional Edition, and Windows 7 Ultimate Edition.
- ❑ Windows Vista refers to Windows Vista Home Basic Edition, Windows Vista Home Premium Edition, Windows Vista Business Edition, Windows Vista Enterprise Edition, and Windows Vista Ultimate Edition.
- ❑ Windows XP refers to Windows XP Home Edition, Windows XP Professional x64 Edition, and Windows XP Professional.
- ❑ Windows Server 2008 refers to Windows Server 2008 and Windows Server 2008 x64 Editions.
- ❑ Windows Server 2003 refers to Windows Server 2003 and Windows Server 2003 x64 Editions.
- ❑ Windows 2000 refers to Windows 2000 Professional.

Macintosh refers to Mac OS X.

- ❑ Mac OS X refers to Mac OS X 10.4.11, 10.5.x, and 10.6.x.

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